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IN THE UNITED STATES DISTRICT COURT
DISTRICT OF UTAH
CENTRAL DIVISION

NOVELL, INC.,)
Plaintiff,)
vs.) CASE NO. 2:04-CV-1045 JFM
MICROSOFT CORPORATION,)
Defendant.)
_____)

BEFORE THE HONORABLE J. FREDERICK MOTZ

December 5, 2011

Jury Trial

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I N D E X

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| Witness | Examination By | Page |
|----------------------|--------------------------|------|
| Charles Middleton | (Video Deposition Cont.) | 4176 |
| Joseph Belfiore, III | Mr. Holley (Direct) | 4226 |

| Exhibit | Received |
|-------------------------|----------|
| (No exhibits received.) | |

1 December 5, 2011

8:00 a.m.

2 P R O C E E D I N G S

3
4 THE COURT: Good morning.

5 Mr. Paris, how are you feeling? I understand that
6 you were in an auto accident.

7 MR. PARIS: I'm fine, Your Honor.

8 Let's get the jury.

9 (WHEREUPON, the jury enters the proceedings.)

10 THE COURT: Good morning, everybody. I hope you
11 all had a great weakened.

12 We'll continue with the deposition of Mr.
13 Middleton.

14 MR. TULCHIN: Yes.

15 THE COURT: I think I am supposed to tell you all
16 you're going to hear something that is quoted by Mr. Gates
17 in an article. It is not being admitted for the truth of
18 what Mr. Gates said, but for the fact that Novell was on
19 notice that Mr. Gates said that.

20 MR. TULCHIN: This is the continuation, Your
21 Honor, of the deposition of Mr. Middleton that we started on
22 Friday. There is one hour and 15 minutes remaining.

23 (WHEREUPON, the vide deposition of Mr. Charles
24 Middleton was played.)

25 Q. I'll ask the court reporter to mark as Exhibit 3 an

1 article from PC Week magazine dated November 6, 1989.

2 And I'll note for the record that this exhibit appears
3 to have some markings on it that don't appear to be from the
4 original publication. And, Mr. Middleton, if you will take
5 a look at the article in the middle there, Bill Gates
6 Answers Critics, Restates Microsoft's GUI Policies. And
7 actually turn to the second page of the exhibit and see in
8 the middle there, of the first column. It is a vision test
9 for you.

10 A. Yes.

11 Q. He states, first full paragraph of the first column, we
12 have been very clear about what we are doing and very clear
13 about what we told other applications software developers,
14 Gates said. We told people, hey, the first thing you should
15 do is write for Microsoft Windows.

16 A. Uh-huh.

17 Q. And this was in 1989. Is this consistent with your
18 recollection of Microsoft's message to developers as of
19 1989?

20 A. Yes. This is, as I stated just previously there -- I
21 was trying to remember exactly how this went. I believe
22 that the way it was was that Microsoft was saying develop
23 for Windows first. But it didn't make sense to us to do
24 that because they also said OS/2 PM is the future and
25 Windows is just an interim solution, basically. And so we

1 wanted to develop for the thing that was going to be around
2 the long term. So even though they were saying develop for
3 Windows first, they weren't saying it because Windows is the
4 strategy for the future. It wasn't the strategy for the
5 future at that time. It was OS/2 PM was the strategy for
6 the future.

7 Q. Did there come a time when WordPerfect shifted its
8 focus to development of a word processing program for the
9 Windows platform?

10 A. Yes.

11 Q. When was that?

12 A. That was basically the same time that Windows 3.0 was
13 released, and I don't remember the exact date on that. I
14 think it was in May of '90, maybe. And it was -- well,
15 Microsoft did a great job of publicizing this. I believe
16 they spent -- I recall, and not that this is really an
17 important fact, but I think it was like \$25 million in
18 advertising in the launch of Windows 3.0 and Word for
19 Windows.

20 And so suddenly there was a huge bunch of hoopla about
21 this, and Microsoft was getting a lot of excitement
22 generated, and getting a lot of publicity. And WordPerfect,
23 who was the king of DOS, was sitting here looking like,
24 geesh, we don't have anything for this. We had been
25 developing for OS/2 PM, but we don't have it ready yet. We

1 need to switch over to Windows and do our Windows version
2 right now.

3 And basically, you know, within a matter of a day or
4 two after that announcement of Windows 3.0 and Microsoft
5 Word for Windows we were in the Windows business. We were
6 excited about that as a team because we thought that would
7 more sense. That's what it should be.

8 Q. Why was that?

9 A. Because -- well, first and foremost because Microsoft
10 was there and we weren't. And Windows, Windows 3.0 really
11 was a big leap forward from the previous versions of
12 Windows. And they were positioning this as a business tool
13 for people to use in their businesses, and computers had
14 been getting faster all along. So it was getting more
15 apparent to everyone that this could be real significant.

16 Now, like I said before, we decided -- when I say we,
17 basically the board decided and we, as programmers and as
18 the development team, took our orders from them. So the
19 board decided that we weren't going to make a decision about
20 the future of OS/2 PM. At the time, it wasn't clear that it
21 was not going to be a viable platform in the future. But it
22 was clear that Windows was now, and we needed to get on
23 that.

24 And so they told us to go ahead and do the Windows
25 stuff. And like I said before, we had a little bit of an

1 effort going on that already. We had a couple of people
2 working on it. Tom Creighton was one of them and Dennis
3 Foster was another. He was a Windows programmer with a year
4 experience, which was the most experience that you could
5 find anywhere. We recruited him from California.

6 And so there was not a lot of Windows experience out
7 there. People were learning about it in the group. And so
8 this team, and I think there was ma be one or two other
9 people that had been learning about it, started to teach the
10 rest of us about Windows and started to bring things over.

11 Now, we had already started developing the user
12 interface for Presentation Manager, and that design was
13 things we thought we could implement in Windows. It just
14 had to be implemented in a different way.

15 Q. So if I understand your testimony, prior to the release
16 of Windows 3.0 there were about three to four people working
17 in a Windows research group --

18 A. Right.

19 Q. -- at WordPerfect?

20 A. Uh-huh. Yes, sorry.

21 Q. What was the size of the OS/2 team at the time; the
22 WordPerfect for OS/2?

23 A. Now, we had already released before then, the character
24 based OS/2 products. So we had a team and, as I recall, it
25 was probably 20 people or so working on that. That was a

1 character based OS/2. And we were working on -- we
2 continued to grow steadily. So we may have had 30 or even
3 40 people by then working on OS/2 PM.

4 Q. Was there another team at WordPerfect working on a new
5 version of WordPerfect for DOS operating system?

6 A. Yes.

7 Q. What was the size of that team, let's say at the time
8 of the release of Windows 3.0?

9 A. You know, I don't know the exact size of the team. I
10 think it was larger than ours. DOS was still the major
11 focus. That was the bread winning -- you know, the cash cow
12 as we sometimes called it. It brought in all the money for
13 the company. And so there was a huge interest in keeping
14 that going.

15 As things developed, just as another little side note
16 here, as things developed we were told by Alan Ashton that
17 we could get anybody from any other group. So we wanted to
18 get people from the DOS group. They were very good
19 programmers and we wanted to get them on our time. At this
20 particular time, and even for sometime in the future, they
21 didn't want to come. The ones that wanted to come already
22 had joined us. And the others really thought that DOS was
23 where things were going to stay.

24 And that's evidenced also by the fact that when -- we
25 released WordPerfect for Windows 5.1 and 5.2, and then

1 WordPerfect for Windows 6.0 was developed by the DOS team
2 and not the Windows team. They had switched over. So even
3 that far into the future they were still thinking that DOS
4 was the most important platform, which seemed to us, in the
5 Windows group, like a big mistake.

6 Q. What made you think that the continued focus on DOS
7 after the release of Windows 3.0 was a big mistake?

8 A. Well, whatever we did in the future, it was our
9 feeling -- and this was actually more after 3.1. After we
10 released WordPerfect for Windows 5.1, which was in November
11 of '91. So after that release, even though there was still
12 a lot of DOS sales, you know, we really felt in our group
13 that Windows was a platform that you had to be on. That was
14 the most important platform that there was. And we were --
15 other people in other departments didn't share that,
16 especially the board. They didn't feel like that was
17 necessarily the case. And it seemed like the rest of the
18 world outside of WordPerfect felt like Windows was the
19 operating system of the future.

20 Again, OS/2 PM, I don't know if -- well, it was still
21 around, obviously, at that time. I don't know if we -- if
22 the company felt like that had been abandoned or not. But
23 certainly they didn't feel like Windows was the future they
24 really needed to focus on. And they looked to people in my
25 group, and myself especially, that that was just a big

1 mistake; that they weren't able to read the market and the
2 way the world was going. It was just a lack of vision.

3 Q. Do you recall the timing at which WordPerfect shifted
4 its focus from development for the OS/2 platform to the
5 development for the Windows platform?

6 A. Yes. It was that day or so after Windows 3.0 was
7 released. Around May of 1990.

8 Q. Did you participate in the decision to switch focus to
9 the Windows development?

10 A. Yes.

11 Q. And why was that?

12 A. I was a director of the development group. So it
13 was -- it was normal for me to be involved in the discussion
14 about it. There really wasn't much discussion. I mean,
15 everybody knew how I felt and they decided to go with it and
16 I said, great. Let's go, and off we went. So there
17 wasn't -- it was obvious enough that there really wasn't
18 much to -- there was no debate, particularly, on it.

19 Q. And at the time WordPerfect switched focus to
20 development for the Windows platform, did the company have a
21 target date for release of a WordPerfect word processor for
22 the Windows platform?

23 A. Yes.

24 Q. And when was that?

25 A. Okay. This was another really tough part of

1 WordPerfect and the way they did things. Target dates were
2 thrown around -- well, let me see how the best way to --
3 there are two or three steps to answering this question
4 properly. A target date -- in the Windows, just in the
5 development environment when you're writing software, and
6 you're writing software that has never been written before
7 and doing things that have never been done before, you don't
8 know how long it is going to take.

9 If you take the time to write a prototype and have a
10 really well defined spec of what you have to do, you can
11 have a much clearer idea. They basically set a target date
12 immediately. It is like -- and the way they did target
13 dates at WordPerfect, it was from the marketing department
14 and it was based on the market need and their desires and
15 things. And then they would go develop it and say, here is
16 your target date. Do you think you can make that? And then
17 we would say, gee, I don't know. They didn't give us any
18 time to really plan it out and see if it was a reasonable
19 thing.

20 And then they would come back and say -- and this is
21 what Pete would do. I remember him doing this. Are you
22 sure that you can't make it? Well, no, I am not positive
23 that I couldn't do it. It might be possible. And then its,
24 okay, then that is the date. And we would invariably miss
25 the date.

1 So the first date that we came out with for the Windows
2 version was I think in the fall or something of 1990. It
3 was like, yeah, it can't be that hard. We are already kind
4 of working on this. We have already been doing things. So,
5 again, as project manager, which was my role there, or one
6 of my roles, I would never want to give a date without
7 having some basis for it. You know, like, okay, what is it
8 we have to do? What's the spec? How far -- you know,
9 because you have features, but how far do you want to go in
10 implementing them and how fancy do you want to make the user
11 interface? You'd have to spend weeks at least, months would
12 be better, in creating a really good spec so that you could
13 estimate well off of that. And so weren't given anything
14 more than minutes, I mean, right there in the meeting.

15 So we had a target date. We went to work on it. We
16 hired more people on the team. We all went into overtime
17 mode right then and stayed in it until the project was
18 shipped. It was 18 months. People didn't take Christmas
19 vacations. There was just one exception where somebody had
20 to, and they let him, and it was a rare thing. It was
21 really horrible. It was a really poor way to manage things.
22 I had never done anything like that before and never want to
23 as far as the way it was managed and denying people
24 vacations, and being in overtime, you know, basically
25 nonstop for 18 months.

1 But at the same time, we were very excited about what
2 we were doing. We felt it was real important and everybody
3 was working really hard, and there was really high moral in
4 the group at that time. Any hardware we needed, anything we
5 needed we would get. There was not a budget on the project
6 that I was aware of. It was just, yeah, if you need it,
7 here it is. So off we went.

8 I believe the first target date was prior to COMDEX.
9 COMDEX of '90 was a big time when we wanted to be able to
10 release this, so there was a lot of pressure to get it done
11 by then. Of course we didn't. We didn't have it ready.
12 And then the new projected date was in -- I think it was the
13 spring of '91. There were probably several dates.

14 The way we would find out about our dates, and this was
15 kind of a joke but it was often true, is we would read, what
16 was it? Computer Week or something like that. The trade
17 press at the time would be where Pete would tell them what
18 our date was, and then we would read it and then we would
19 know what our target date was.

20 It didn't always work out that day, but it was kind of
21 a joke. You should never have it be that way. Not even
22 once. I mean, that should be something that we, you know,
23 are really in on. You just couldn't get -- I mean, people
24 that were at the top of the company, even though two of the
25 people on the board were programmers, programming a thing as

1 massive as this, there was just too many things involved to
2 estimate a date without a lot of work.

3 So, anyway, does that answer your question? It was
4 like there were several dates along the way. In the
5 deposition I just read I think we talked about four of them.
6 Two of them were in early '91. One of them was in '90. And
7 then the final release date was around COMDEX in '91, in
8 November of '91.

9 Q. What was the actual release date?

10 A. It was in November of '91. I don't remember the exact
11 date, if it was before or after COMDEX. I believe it was
12 before COMDEX.

13 Q. And you testified that that was 18 months after --

14 A. About 18 months, from May to November of the next year.

15 Q. After the release of Windows 3.0; is that correct?

16 A. Right.

17 Q. What were your responsibilities in the WordPerfect for
18 Windows development team during this time?

19 A. I was the director of the department. I was the
20 product manager. I was a project manager. Basically
21 everything that had to be done to get the product out was my
22 responsibility. So I had programmers directly -- reported
23 to me directly, as did the testers.

24 As I recall, we had about 100 testers at the end and
25 about 50 programmers. So I had about 150 people in teams.

1 They were broken down into teams with team managers and
2 things. And those people reported to me.

3 And then there was another, I think about, as I recall,
4 the whole number on the project was about 500 people. And
5 that included documentation, which was another department
6 that didn't report directly to me, but we met weekly with
7 them and all the others that were involved in any way.
8 Packaging. And there was a marketing person that was
9 assigned to work with us that, you know, as far as the
10 decision of the packaging and things like that, they handled
11 all of that stuff, the marketing people did.

12 As far as the look of the product, how the graphical
13 user interface was translated from DOS over to the new
14 platform, to Windows, that was all up to us.

15 Q. Who did you report to?

16 A. I reported to Alan Ashton.

17 Q. What was the name of the product that you were
18 developing, you team was developing at the time?

19 A. We were calling it WordPerfect 5.1 for Windows, I
20 think. There was some discussion on that because we called
21 it WordPerfect for Windows, and then it was version 5.1.
22 But they kind of had this written both ways, but it wasn't
23 WordPerfect for Windows 5.1. It was WordPerfect 5.1 for
24 Windows 3.0, basically.

25 So when we were thinking about it, it was called

1 WordPerfect 5.1 for Windows, if I'm getting it right.

2 Q. You testified a moment ago that you tried to get people
3 from the WordPerfect for DOS development group to join the
4 Windows team.

5 Were you successful in that effort?

6 A. Well, originally a lot of the people that were in our
7 group were from DOS. I had been working in the DOS group.
8 And so there were a lot people that I had worked with
9 before, so we did have several of them. But at the point
10 later on, when I was talking about it just a minute ago, it
11 was about that point later where we were under such pressure
12 to get it out, and Alan said, on more than one occasion,
13 anybody you want from other groups, you can get.

14 So every time he said that, I went over and talked to
15 them and said, hey, we are looking for people. Because
16 these are people who understood -- it was a lot better to
17 hire -- to get one of these guys that had a known track
18 record and knew WordPerfect from the inside out, than to try
19 to hire somebody off of the street to come and work in the
20 group, even though if we could have hired people with
21 Windows experience that was also valuable. And we did. We
22 hired other people with Windows experience at that time too.

23 Q. Do I understand your testimony to mean that developers
24 had a choice of which platform to work on?

25 A. Yes, they did, a lot at WordPerfect. WordPerfect was

1 an interesting company. I mentioned off the record earlier
2 that it was referred to as Camelot at times, both because it
3 was a wonderful place to work, and also because it kind of
4 went away in a similar way as Camelot.

5 But people -- most of the programmers were handpicked
6 by Alan Ashton. He was a professor at Brigham Young
7 University in the computer science department, and he would
8 offer jobs to the top students. And they were paid very
9 well. And they were very excited about working there. And
10 there was kind of an attitude among the programmers that
11 WordPerfect's purpose for existence was for them to be happy
12 in their job.

13 Now, it got kind of corrected in people's minds after
14 the dot com, you know, fall and things like that. And all
15 of the layoffs that happened, actually even before that when
16 we were -- before we got bought by Novell. But there was --
17 during the time from the time I hired on all the way through
18 the development of WordPerfect for Windows, there were no
19 layoffs. There had never been layoffs at WordPerfect. They
20 started after that when they had their first one, and so
21 people, eleven with an unrealistic attitude like that, like,
22 I'm supposed to be happy. That is what the company is for.
23 I like working here better. I'm comfortable and I know what
24 I'm doing and things.

25 And they also felt like Alan was going to take care of

1 them no matter what happened. So if things did change, that
2 one of Alan's priorities was to make sure that they
3 continued to be happy. And so they didn't feel like -- so
4 anyway, staying in the DOS group wasn't something that -- it
5 was something they had a choice about, to get right to your
6 question. They could have been compelled to come into my
7 group. I didn't want to do that because I didn't want
8 anybody there that didn't really want to be there. The
9 people that -- you know, we had a very tightknit group.
10 They worked well together. Everybody was excited about
11 being there and what they were doing. So people that had
12 that kind of an attitude and vision about the future of GUI
13 interfaces and things, they were great. And we did have a
14 really good team.

15 So, yeah, I never did try to talk anybody into coming
16 over. I just went to see if, now do you think that you
17 would like to? No? Still didn't. So that was it.

18 Q. When WordPerfect set out to develop a word processor
19 for Windows 3.0, did it start from scratch or did it --

20 A. No. As far as the code base kind of thing? What it
21 started from is the DOS code. I mean, we had a product and
22 what we were trying to do was to take that product with the
23 same engine, basically, which is where all the processing
24 was done to figure out where lines break and where footnotes
25 go on all this sort of stuff. That was all the same code.

1 And then we were putting a new interface on it, was the only
2 difference.

3 So if you're thinking of it like a car, you're
4 replacing the outside body and keeping the chassis and the
5 engine from before, and the wheels. Basically just the look
6 on the outside. And the dashboard inside would be redone.

7 Q. What language was the WordPerfect for DOS program
8 written in?

9 A. It was all in assembly language. That was the code
10 base that we got it from.

11 Q. Now, for Windows you had to write things in C. So we
12 did write the graphical user interface in C at that time,
13 and we actually had quite a challenge to bring over this
14 huge assembly language engine into Windows and have it, you
15 know, cohabit with everything. And that was an area
16 where we communicated with the Microsoft developers from the
17 Windows development team a lot on how to best do that. And
18 they helped us do it and they were good at helping us with
19 that.

20 Q. What types of assistance did the Microsoft Windows
21 developers provide to you in your development efforts?

22 A. It was consulting, mainly. Just answering our
23 questions, basically. Our programmers were doing all the
24 work, but we were contacting them for how do we get this
25 done in this environment? And they would answer our

1 questions.

2 Q. And did Microsoft seem forthcoming in their answers to
3 your developers' questions?

4 A. Actually -- they were pretty forthcoming as compared
5 with other things. They were not always real forthcoming.
6 But in this particular situation we were able to get some
7 good help and get that working.

8 Q. Had Microsoft recommended that programs for the Windows
9 platform be written in assembly language?

10 A. No. That was a weird thing to do. We were probably
11 alone in the marketplace in doing that. It was unusual.
12 But it was because, first of all, we were very concerned
13 about speed.

14 And, second of all, we already had it. And also time
15 to market was another thing. We had the whole engine
16 written, so as far as to rewrite it in C and have it be fast
17 enough would have taken us a lot more time. The version
18 that was written in C for the Unix platform, it usually
19 trailed -- it was probably a previous version. Otherwise,
20 we might have considered using that. But the speed of it,
21 the operational speed and getting it up to the current
22 version probably made it impractical.

23 I don't remember all of the reasons we decided that,
24 but we didn't have much other choice we felt at that time.
25 Especially because we were late when we started. We were

1 always under the gun, so anything that we could do to be
2 more efficient in getting it out quicker, we tried to do.
3 There weren't any drawbacks in having it in assembly
4 language after we got it in there working. It was all under
5 the covers kind of thing. The big problem was just getting
6 it in there and working. If we hadn't been about to achieve
7 that with the help of Microsoft, then we probably would have
8 written it in C.

9 Q. About how much time did it take to get it in there and
10 working, as you stated?

11 A. Now, I don't know exactly. I know that Dennis Foster
12 was working with Microsoft on that a lot, and if you wanted
13 to ask him about it, I don't know if you have contacted him,
14 he would be a good one to answer that question.

15 As I recall, it was like a month or something. But,
16 you know, I was not in a position that I was worried about
17 it every day or, you know, I was updated on it. But also it
18 was long enough ago that I don't remember exactly.

19 Q. Is this an area where it would have been helpful to the
20 team to have more experienced developers from the
21 WordPerfect for DOS development team working?

22 A. No, we had enough developers from the DOS group and we
23 understand it, you know, the assembling language issues well
24 enough. Plus, we could ask questions of the DOS group, you
25 know. And that probably did happen, as well, as needed in

1 this case.

2 One of the people in the DOS group who had written a
3 lot of that was Alan Brown, who was -- he was quite
4 cooperative with us, but he was in a management position
5 over the DOS group and wasn't someone that we could attract
6 as a programmer to come over and work on our team. But he
7 had been involved in the original writing of all of that
8 engine code and -- or a lot of it, and really knew it well.
9 So he was a resource that we could call on and get help from
10 as needed.

11 Q. Mr. Middleton, you testified earlier that WordPerfect
12 released its WordPerfect 5.1 for Windows product in November
13 of 1991; is that correct?

14 A. That is right.

15 Q. What did you do after the release of WordPerfect 5.1
16 for Windows?

17 A. I worked on 5.2, which was an interim release that
18 just -- we identified a lot of things along the way in 5.1.
19 You do this with any product, things that you want to get to
20 that you don't have time. So we got to some of these issues
21 and also fixed some bugs that were reported and things like
22 that. And then I was assigned to another department after
23 that to work on a viewer, work with Folio Corporation on
24 viewing technology.

25 Q. Do you have any understanding as to why you were

1 assigned away from the development for the Windows platform?

2 A. No, not really. I heard some rumors that from Tom, and
3 I didn't hear it from Alan. I did write an e-mail to Dave
4 Moon, who was a senior VP of development at one point and
5 saying, you know, we really have got some problems here and
6 we need to take -- the approach we need to take for the next
7 version is we need to focus on these particular things.

8 Anyway, I didn't get, I got a response from the e-mail but
9 he didn't take any action on anything that I suggested.

10 Q. What were your suggestions to Dave Moon?

11 A. That we needed to -- we needed to focus on speed and
12 stability were the main things. We didn't need to worry
13 about new features. Oh, and ease of use, those three
14 things. The speed of the product, and we could have
15 improved that; stability meaning fixing bugs in the product,
16 and I'm talking about WordPerfect for Windows 5.2 at the
17 time; and then the ease of use would just be taking feedback
18 from people that were using the product, either customers or
19 also they were doing usability testing at that time to try
20 to improve the way that the user interface was for
21 particular features.

22 Q. The product that you just testified about that was
23 received poorly and was buggy, what product was that?

24 A. That was WordPerfect for DOS 6.0.

25 Q. How was the WordPerfect for Windows 6.0 product

1 received in the marketplace?

2 A. I'm sorry. Actually, the answer to your previous
3 question was WordPerfect for Windows 6.0. They all came out
4 at the same time and they had a DOS version and a Windows
5 version and things with all the same feature set. That was
6 the way they had set it up. But, yeah, the Windows version
7 was the one that we were, you know, watching and tracking
8 and things, and all interested in. That was the one that
9 had that response from the marketplace, was buggy.

10 Q. To jump back for a moment, you testified that you
11 worked on WordPerfect 5.2 for Windows; is that correct?

12 A. Right.

13 Q. And that that was an interim release; is that correct?

14 A. Right.

15 Q. What's the purpose of an interim release?

16 A. Well, usually with our numbering system and the way we
17 did it, and it was kind of common in the industry, or it was
18 at that time especially, is a point 0 release was kind of a
19 newer -- what shall I say? Lots of new features and lots of
20 new things, whereas a 6.1 release would be basically a 6.0
21 with most of the same features with some minor new features,
22 and mostly just bug fixes and improving speed and other
23 things like that. So those were the kind of interim release
24 things.

25 Now, it didn't always follow that. The difference

1 between 5.0 and 5.1, they had a lot of new features in
2 there. They put new features in 4.2. The table of
3 authorities feature was a new thing in 4.2, and they didn't
4 call it 5.0. So it was kind of a loose thing.

5 But also there was an expectation that if you bought a
6 point 0 release, you had all those new features but the bugs
7 hadn't all been worked out. So if you bought the point one
8 or the point two of that, you might have a more stable
9 version with the same features. So a lot of people didn't
10 wait for the point releases to come out, the interim
11 releases.

12 Q. What were the differences between WordPerfect 5.1 and
13 5.2 for Windows?

14 A. They were just those kinds of things, just bug fixes
15 and improvements on speed and things. We came out with that
16 fairly quickly. It was a release that came out only a few
17 months after 5.1. So basically 5.1 was to get us to the
18 market with something as quick as we could because we were
19 so far behind. You know, they didn't want to take the time
20 to work on anymore than they absolutely had to to have us
21 get this out.

22 And then 5.2 was just continuing down our list of
23 things that we wanted to have done. And I think it came out
24 about six months later. A major release would have usually
25 taken about 18 months.

1 Q. So you agree that there were problems in 5.1 that
2 needed to be addressed --

3 A. Yes.

4 Q. -- by the 5.2 release?

5 A. Yes.

6 Q. Let's finish it. Do you recall some of the major
7 problems that existed in WordPerfect 5.1 for Windows that
8 needed to be addressed by the WordPerfect 5.2 for Windows
9 interim release?

10 A. I don't remember any specific issues. I do remember
11 that when we released 5.1 we had a lot of things that we had
12 discovered that we knew that we wanted to fix. And when you
13 do that in this process and you release it to millions of
14 people, sometimes you find if you're testing team has not
15 done a real good job you might find surprise out there in
16 the marketplace and people reporting bugs that you didn't
17 know about. That is a real scary thing. And so we tried to
18 avoid that.

19 The good news on 5.1 was when we found problems that
20 people did report, they were problems that we knew about and
21 we had decided to go ahead and ship, you know, knowing that
22 those problems were there because we didn't consider them
23 significant enough to hold up the 5.1 release. And so we
24 didn't have surprises. That is the thing I remember that we
25 were all very pleased about.

1 What the particular issues were, I can tell you about
2 the kinds of issues that there typically are and it wasn't
3 anything different from what we expected. But I couldn't
4 give you any -- there weren't any big things that were like
5 adding major features or anything like that.

6 Q. Do I understand from your prior testimony that
7 WordPerfect shipped its 5.1 for Windows product knowing that
8 there were bugs in the program?

9 A. Yes. Now, users -- I mean, you can't possibly ship a
10 product with no bugs, no known bugs, unless you just don't
11 look. But it is a complicated enough thing that you are
12 always going to have bugs in it. Every software company I
13 have ever worked for or known anything about, that is the
14 way that it works, unless you're doing something so simple
15 that it does not matter.

16 If you have -- well, I worked at Jet Propulsion
17 Laboratory. I mentioned that. And we had a different kind
18 of product there. It went out on spacecraft. If you had a
19 bug there, you couldn't go back and fix it very easily. You
20 had to do it remotely, if you could do anything at all,
21 which was basically more of a work around than anything
22 else. So you added another -- like in their case they had
23 about a year of testing after everybody said they were done
24 before they were ready to deploy this and, you know, launch
25 it. And that would have been nice to do in our market. And

1 I certainly, you know, I knew about that and so I tried to
2 kind of balance those things. But we were under such
3 pressure from marketing all the time to get out to market
4 that we -- we had to accept a lot of things that we would
5 have liked to have seen fixed.

6 But, I mean, the criteria was like if they were not
7 going to destroy data, there was a work around for them, or
8 there was a cosmetic kind of issue, and maybe if it was
9 something that few people were going to run into, then it
10 was a low priority bug and it could wait for the next
11 release.

12 But that was standard in the industry. I need to point
13 that out. It was not just us. Although I do remember back
14 then that some company saying that they were going to ship a
15 product with zero bugs in it, and we all thought that was
16 very comical. I think it might have been Microsoft. I
17 don't remember exactly who it was, but we were surprised to
18 hear that and thinking, good luck.

19 Q. Let's turn back to Exhibit 2 so that we can keep
20 marching through your history at WordPerfect.

21 You have testified some about your time in 1992 and
22 1993. Was that the time when WordPerfect was developing its
23 6.0 word processing program?

24 A. Yes.

25 Q. Do I understand from your testimony that you were not

1 involved in the development of WordPerfect's 6.0 for Windows
2 product?

3 A. That is correct.

4 Q. Did you ever become involved in the development of the
5 WordPerfect for Windows product subsequently?

6 A. Yes. I was later on -- these other projects that I had
7 worked on were eventually canceled and I was hired back --
8 actually I worked for Tom Creighton in a group. Let's see.
9 It would have been -- I think it was in '94 where I was a
10 manager of a few of the teams in the shared code group that
11 Tom Creighton was I believe -- well, he was the manager of
12 that group.

13 Then that group was one of the groups that supported
14 WordPerfect. The shared code was shared between WordPerfect
15 and, at the time, it was -- what do we call it? WordPerfect
16 Office, I think. Later became GroupWise. So there was code
17 shared between that, and then others in the suite. We were
18 developing a suite at that time, and the code that was
19 shared by all of the programs in the suite were done by this
20 group. So we did things like printing and things like that.

21 Q. Do you recall what version of WordPerfect for Windows
22 was under development at the time that you worked in the
23 shared code group?

24 A. I think we were working on WordPerfect 7.0. I think we
25 did 6.0, 6.1, and then we went to 7.0 which was a lot of

1 improvements on a major level. We spent a lot of time
2 working on that.

3 Q. Did you remain at the company through the release of
4 the WordPerfect 7.0 for Windows product?

5 A. I don't think it was released by the time I left. I
6 left in November of '95. And I believe it was still in
7 development for a few months after that, to the best of my
8 recollection.

9 Q. What version of Windows was the WordPerfect 7.0
10 application being written for?

11 A. I think it was for Windows 95. I don't remember really
12 clearly on that. I could be wrong on that. But I think
13 that is why it was a 7.0 release is because it was --
14 Windows 95 was a big improvement over Windows 3.1. I think
15 it went Windows 3.0, 3.1 and then 95. Is that correct? I
16 don't think there was a Windows 3.2 that I remember, but I
17 don't know. I was in this other group for awhile and wasn't
18 that involved in it.

19 Q. You testified that you worked in the shared code group.
20 What is shared code?

21 A. Okay. Well, printing is an example. Anybody that
22 needed to use a printing service, which all these products
23 did, they would use our printing. So this was a -- the
24 printing capability was shared with the WordPerfect product
25 and the GroupWise product and -- well, we also had -- let's

1 see.

2 There was a database program and it was Quattro Pro, I
3 think. And then there was a spreadsheet program. I think
4 Quattro Pro was a spreadsheet program, and what was the
5 database program? I don't remember. But anyhow, we had a
6 suite of several things and whenever they used common code,
7 if there were things that they were using that were the same
8 as other things we would do, like printing, they would use
9 this common code.

10 Another thing was macros. You could write a macro that
11 would run across several of these programs and it was a
12 shared code macro.

13 Q. In your work on the shared code team, did you do any
14 work on any suite products for WordPerfect?

15 A. Okay. So the shared code was used in the suite, but it
16 was separated out in such a way that we were just focused on
17 the issues that -- how they were used, and the suite used
18 the things that we did, but how they used it wasn't really
19 involved in very much other than the specifications of what
20 we needed to developed were based on how they were going to
21 be used. But at the time, I was not very involved in seeing
22 the end result and how it was all coming together other than
23 just as a user of the new products. But under the
24 development of it, I wasn't; before it was released, I
25 wasn't.

1 Q. Why use shared code?

2 A. Shared code was an attempt to utilize things that had
3 already been developed. One reason is so you didn't have to
4 rewrite code that was going to be used in two different
5 places. And another was that your testing of that code
6 could all be done -- it was kind of a modularizing of code
7 which is used a lot today.

8 Now, if you use things like on a -- if you're needing
9 to download an active X control or something in Windows,
10 that is a shared piece of code basically that can be -- it
11 is a little module that can be used in many different
12 products. Like something that does a calendar. Every
13 developer does not have to develop its own little calendar
14 graphics. You can click on a date that you want or a time
15 and things and have that go into an edit window. Or an
16 edit -- anyway, an edit control.

17 If you were not using shared code, every time you saw
18 one of those it would be developed independently. It
19 wouldn't have a common look and feel. It wouldn't be -- it
20 would be using new code that had to be tested just for that.
21 So there was all that overhead of creating it and testing
22 it, and then if you find a bug in your code and fix it, and
23 that bug may still exist in some other code. So you don't
24 have the benefit of fixing things in one place and seeing
25 things improve that way.

1 Shared code was the early, the grandparent of that. It
2 worked well where it was utilized that way. If you wrote
3 code and had shared code and only one application used it
4 then, you know, it was not taking advantage of that
5 capability as much, but that would happen.

6 Q. So do you have any recollection of the shared code team
7 collaborating with the developers of the Borland Quattro Pro
8 spreadsheet program?

9 A. I knew that that was -- sorry. I knew that that was
10 happening. Eric Meyers was a person I worked with on the
11 WordPerfect for Windows development. And we were good
12 friends and we kept in touch on things. He was involved in
13 the suite, in putting that whole thing together, and so we
14 talked occasionally about the challenges of doing that. So
15 I knew that they were working with Borland to solve problems
16 and cooperate on those kinds of issues. But I don't know
17 any details. I don't remember any.

18 Q. How was the portion of the company that had previously
19 been WordPerfect managed after it was acquired by Novell?

20 A. They had -- well, Alan and Bruce, the board, was no
21 longer doing the management like it had been in the past. I
22 don't recall the names of the people very well. I might
23 recognize them. But I think they had something they called
24 a general manager that was managing our group. I mean, we
25 stayed in the same buildings. We didn't move to the Novell

1 area or anything.

2 Novell was in south Provo and we were in north Orem and
3 we stayed there just working on WordPerfect. So other than,
4 you know, some high level differences and differences maybe
5 in the benefits and other things, it was all the same on a
6 daily work basis before and after the merger with Novell.

7 Q. Let's talk a little bit more about the Novell
8 acquisition of WordPerfect. When you learned of the -- I
9 imagine it was a planned acquisition at that point, what was
10 your reaction to the acquisition?

11 A. Let me try to remember. There might have been an
12 initial reaction that is different than how I felt about it
13 a little later. I think -- okay, I think initially -- well,
14 we were all trying to look for the positive in things and be
15 supportive. We all liked Alan, Bruce and Pete. Especially
16 Alan. It was something that he wanted to do so we were
17 naturally supportive of things that he wanted to do. I
18 don't remember hearing a bunch of grumbling at the company.

19 One of the things that happened along with this was not
20 too long prior, they had issued some stock options, I think
21 it was, to many of us in development. I think probably
22 everybody in development, and I don't know how far across
23 the company it went. But WordPerfect was a privately held
24 company and so we couldn't, you know, get anything out of
25 those. When we were purchased by Novell, that became Novell

1 stock. And we were able to cash in on it. It was converted
2 over at a favorable rate. It was actually better than we
3 expected. And so that was nice. Everybody felt good about
4 that.

5 We didn't know how long things were going to work
6 eventually. We were hoping it was a good arrangement and it
7 would work out well. We didn't know how much -- we didn't
8 know any the details of the plan of what was going to happen
9 in the future or how much Novell understood of what they
10 were getting into. But initially it was a positive feeling
11 about the whole thing.

12 Q. What did you mean when you testified that you didn't
13 know how much Novell understood of what they were getting
14 into?

15 A. Yeah, that was kind of a foreshadowing of another
16 question I thought you'd ask. Because a year and a half
17 later or two years, whenever it was that they sold to Corel,
18 I mean, things had -- well, things began to be apparent
19 after just a short while that there was a lot of problems.
20 We were surprised, and by we I mean myself and other people
21 that I talked to, it was kind of a general feeling in
22 development, the people I talked to about this were other
23 developers, that we found out, for one, that Novell had laid
24 off the WordPerfect sales force.

25 The problem that we were having, and this is where you

1 come down to the actual knowledge I have, is that we were
2 getting a lot of pressure from upper management to get this
3 next version of WordPerfect out faster because our sales
4 were really impacted, which is the reason we were often
5 given for things like this.

6 Q. Did your salary change after Novell acquired
7 WordPerfect?

8 A. It had dropped considerably in the couple of years
9 preceding that. And, like I said, we had really nice
10 salaries for a while in the big days there. And then as the
11 problems with WordPerfect 6.0 for DOS and Windows and
12 everything salaries were dropping. I don't remember exactly
13 the sequence of all of that, but it went down for I think it
14 was a couple years before the acquisition by Novell.

15 And then I had a salary that was set by Novell that was
16 not linked to sales like it had been in WordPerfect. I
17 don't remember exactly when that -- it didn't seem like it
18 was a lot less than I was making at the time. But I think
19 it did go down a little bit. At least it was kind of
20 stabilized at that point. It seemed like it was not tied to
21 sales anymore.

22 Q. I'll ask the court reporter to mark as Exhibit 4 a
23 document entitled Novell Compensation Memo.

24 It is dated February 27, 1995, with production number
25 NOV 00210499.

1 I will just give you a moment to look it over, Mr.
2 Middleton.

3 This memorandum is regarding salary reduction\salary
4 transition plan, indicates that your salary was reduced
5 starting in February 1995. Does that comport with your
6 recollection of any changes in your salary after the Novell
7 acquisition?

8 A. You know, I remember it being adjusted a lot and going
9 down, and settling at, you know, at some point. But I don't
10 remember these kind of details. I do not remember this,
11 either. So it looks like it had gone down some chunk here,
12 that they needed to take out some more. So it was not too
13 far off from what it ended up settling at at that time.

14 Can you restate the actual question again?

15 Q. Just whether this comports with your recollection of
16 the salary decreases after the Novell acquisition?

17 A. Yeah. This does not seem at all unusual, even though I
18 don't remember the exact incident here of them overpaying me
19 and then having to take out a little more. This does not
20 seem out of the ordinary or out of line with what was
21 happening then.

22 Q. You testified that your salary had been decreased in
23 the months and years preceding Novell's acquisition of
24 WordPerfect as well.

25 Do you have any understanding of why that was?

1 A. Well, yeah. My understanding was our sales were
2 decreasing, and my salary was tied to sales and so that was
3 a normal thing. It kind of went up and down anyway.
4 Anyway, it had -- we thought that -- so was your question
5 about why we thought that was happening?

6 Q. Yes.

7 A. It was because of sales going down. That was what we
8 understood. Well, and it could have also been because they
9 wanted to change the program, the way they were getting
10 this -- I mean, at the time that we were -- you know, at
11 some point the new company that acquired us wasn't going to
12 be paying us the same way. We kind of figured that that
13 would be the way it went, and so there was going to be a
14 change.

15 But I don't know when we were actually beginning to
16 understand that that was going to happen with Novell,
17 because this was in '95. Novell acquired us in '94. And
18 when was it? It was like many months before, maybe not
19 quite a year that this was happening, so they were probably
20 paying us the same way for awhile. I didn't remember
21 whether they had or not.

22 Q. You testified that sales had been decreasing over time,
23 and you attributed that in part to the fact that as the
24 world moved to Windows, WordPerfect didn't move to Windows
25 as well.

1 Did I get your testimony correct?

2 A. Yes.

3 Q. What did you mean by that?

4 A. Well, we were -- here in March or May, let's say, of
5 1990 we were all pretty much agreed that, wow, we had to
6 produce a product for Windows. That was really important.
7 And we in the windows, you know, in the development team
8 there thought, okay, good, it took this for our upper
9 management to realize that they have to be doing this, but
10 at least they are realizing it now. And off we went.

11 We worked really hard in producing this product and 18
12 months later we released it. We had this phenomena -- they
13 actually had a contest of people guessing what would be our
14 sales revenue in the first 30 days. What is why I remember
15 the figure, because the winning number was \$89 million.
16 That was a lot. I believe it set a record at the time in
17 the industry. It was a very successful release.

18 And then we came up with 5.2, which was an improvement
19 on that, and we had done a lot of things right. We were
20 behind, but we were catching up and we felt good about that.

21 Q. Okay. We'll move on from that. After Novell acquired
22 WordPerfect, did Novell managers ever -- did anyone ever
23 make suggestions about how you could get finished with
24 development more quickly?

25 A. Yes. If you're referring to when the general

1 manager -- they brought in a new general manager at one
2 point of the WordPerfect group, and we were behind on our
3 dates again as far as getting out this next version. I
4 think where we were at at this time was a few months from
5 code complete, and following code complete there would be
6 some beta testing time. And when you're a few months away
7 from code complete in this process it was like a nine to 12
8 month process, the way it ended up, you really couldn't do
9 much to make it go faster, except making things as nice as,
10 you know, stay out of the developers' way. Don't distract
11 them and let them do their job. That was really the best
12 thing to do from a management standpoint.

13 So we had a general manager who recommended that we add
14 another shift. So his recommendation was we hire a bunch
15 more programmers, have a night shift that would come in and
16 work on the code that other people were developing during
17 the day, and then the next day the other developers would
18 come back and continue on it to get things done faster.

19 This was kind of a critical blow in terms of our
20 respect for that manager, because that was a ridiculous idea
21 in software development, because people had these things in
22 their head of what they were doing and where they left off.
23 And, if anything, if there was ever a shift that came in and
24 worked on your code at night, the next day would be a
25 disaster. You would hopefully be able to fix things and to

1 get them back to where they were by the end of the day, but
2 not make any progress. So the whole thing was a crazy idea.

3 Anyway, but that was the only suggestion that they had
4 at that time. They were trying to put the pressure on and
5 they hired this guy as -- and he came in with credentials --
6 having purported to be somebody that understood software
7 development. And this made us all feel like this guy does
8 not understand software development at all.

9 Q. Was this a manager who had been hired by Novell to
10 manage the WordPerfect division of Novell?

11 A. Yes.

12 Q. Were there any cultural differences between the
13 formerly Novell employees and those who had formerly been at
14 WordPerfect?

15 A. We had a very similar culture. There were some
16 employees at WordPerfect that had worked at Novell before.
17 I don't believe there were any from WordPerfect that had
18 gone to Novell. We typically didn't ever lose anybody.
19 Almost no turnover. It was kind of an unusual thing with
20 WordPerfect.

21 But, anyway, so it seemed like the cultures were pretty
22 similar. And the people that I talked to, the Novell
23 employees, you know, in later years, that always was the
24 case.

25 Now, in my job, though, at this time I was not in

1 contract with any developers at Novell. I was in contact
2 with some people, my management, you know, and I was
3 involved in some things at Novell helping out with some
4 things in an HR sense. They were developing a new employee
5 review system, and so I was on a team working on that. But
6 I was not working with developers on that. It was other
7 people.

8 Q. Why did you leave Novell?

9 A. So in November of '95 we had a meeting. And Novell
10 told us that they were going to sell off the WordPerfect
11 group, and they didn't know who they were going to sell it
12 to. But there were 1,800 of us left at the time, and we had
13 been 6,000 a few years earlier. And we had had steady
14 layoffs until we were down to this 1,800. In this meeting
15 they told us that they had to pare it down to 1,200 because
16 there were going to be 600 people laid off in order to get
17 this ready to sell.

18 And they also open up a voluntary, you know, you could
19 voluntarily leave and get your severance pay. At that time
20 I had been there -- at that point they were recognizing my
21 time at WordPerfect before, so I was about nine and a half
22 years of employment. So they were giving me a lot of
23 severance pay. I felt like -- to me this whole thing had
24 been quite a disaster. I didn't have much confidence that
25 the next company that bought WordPerfect was going to be

1 able to pull things out. And I didn't know who it was going
2 to be and I doubted I would get such a deal there. So I
3 thought, hey, this is a good time to leave. So that was
4 why.

5 Q. Could you pull out Exhibit 2 again, please.

6 That's your experience and education survey. And I'd
7 like to walk through it again just a little bit.

8 As of 1989 through '92, you were responsible for the
9 development of WordPerfect 5.1 for Windows; is that correct?

10 A. That is right.

11 Q. From there you became responsible for the development
12 of a document viewer based on WPWin 6.0 code to view
13 WordPerfect 5.0, 5.1 and 6.0 documents.

14 Is that correct?

15 A. That is right.

16 Q. You were not involved in the development or marketing
17 of 5.2, WordPerfect 5.2, were you?

18 A. 5.2, yes. That should have been included, actually, in
19 the previous section, 1989 to 1992. I actually left -- I'm
20 trying to remember, but I think I left and was called back.

21 But I managed the 5.2 release, or I was involved in the
22 release. They might have had another manager asked me to
23 help him to do it, and I can't remember exactly the details,

24 but I was there through that release of 5.2 which was
25 shortly after. That would have been into '92, probably the

1 spring of '92 when we released that, I would expect.

2 Q. So while you were in charge of WordPerfect 5.1 you had
3 now many people reporting to you?

4 A. Direct reports, about 150.

5 Q. And then for 5.2, you don't remember if you were in
6 charge of that effort; is that right?

7 A. I don't remember exactly how it was structured. I was
8 involved in the effort. I was doing basically the same
9 thing I was doing before, but I may have been working
10 with -- it was one of the other members of the team. I
11 believe it was Greg Bates, actually, that was working quite
12 a bit. So I might have been helping him, or him helping me.
13 It didn't really matter as far as our job functionally.

14 Q. Okay. And from there you became involved in the
15 project to develop the viewer, correct?

16 A. That is right.

17 Q. And somebody else was responsible for developing and
18 marketing WordPerfect 6.0; is that right?

19 A. That is right.

20 Q. And you were not involved in the marketing or
21 development of 6.0A, correct?

22 A. That is right, 6.0A. I forgot about that. No, I was
23 not involved in either one of those.

24 Q. And you were not involved in the marketing or
25 development of WordPerfect 6.1, were you?

1 A. No.

2 Q. And you were not involved in the marketing and
3 development of WordPerfect 7.0, the planned release for
4 Windows 95 except for your limited involvement in the shared
5 code group; is that right?

6 A. That is correct.

7 Q. During this time period were you ever involved in the
8 sales division of WordPerfect?

9 A. No.

10 Q. Were you involved in the marketing division of
11 WordPerfect?

12 A. No.

13 Q. What was the basis of your knowledge of WordPerfect
14 sales of WordPerfect 5.1 for Windows?

15 A. For the first 30 days?

16 Q. Not just the first 30. Your knowledge of the sales
17 numbers of WordPerfect 5.1 for Windows?

18 A. I didn't -- other than the postings of sales, the only
19 thing I knew was that \$89 million figure of the sales in the
20 first 30 days, because that was a publicized contest that
21 they had. So other than that -- the other fact was that my
22 salary was based on total sales in the company. It would
23 have been combined with the DOS sales. So I don't know the
24 break down of what that was in the months that followed.

25 How much of my salary was coming from WordPerfect for

1 Windows sales versus WordPerfect for DOS sales.

2 Q. So your understanding of the sales success is based on
3 your salary, which was tied to the sales, and from the trade
4 press?

5 A. Right. Right. Both of those.

6 Q. Anything else?

7 A. Well, no, that was it.

8 Q. Did you have any responsibility for tracking the market
9 share of WordPerfect, whether for DOS or for Windows?

10 A. No. No responsibility for it.

11 Q. If we look back to Exhibit 2, which is the survey that
12 you prepared in August of 1994, your job was still in the
13 SGML viewer group; is that right?

14 A. Yes.

15 Q. So do you know if within those three months after
16 August '94 you became involved in the shared code for
17 Perfect Office 3.0?

18 A. I am sorry. Could you repeat that?

19 Q. In the three months following this August 11, 1994
20 survey, did you transition to the shared code group to work
21 on the Perfect Office 3.0 release?

22 A. It was around that time. The supervisor listed here
23 was in the SGML group. Well, actually -- yes, I guess
24 that's what it was. That was before I transferred back to
25 work for the shared code group. I don't remember exactly,

1 but it seemed like I was there for about a year before my
2 final year with the company. And that would have put it in
3 November of '94, so it was around that time frame.

4 Q. Okay. Quickly on the SGML viewer group, how many
5 people reported to you while you were working on the SGML
6 viewer project?

7 A. Let's see. Actually, I was reporting to Dallas Powell
8 at that time. I didn't have anybody reporting to me. Now,
9 when I was doing the document viewer before that, this was
10 not the SGML viewer, that was a different thing, that
11 project that said it was canceled, there I had a small team
12 reporting to me of -- I think there was three to five people
13 over a period of six or eight months. Something like that.

14 Q. So if I understand the transition, you went from being
15 in charge of 150 people for the WordPerfect 5.1 release to
16 three to five people on this document viewer project; is
17 that right?

18 A. Right.

19 Q. And did you view that as a promotion?

20 A. No. I was kind of unhappy about it. I was getting
21 paid the same. My pay was based on sales. It was not based
22 on a title that I had, and I was happy to help wherever I
23 could in the company. But I was unhappy in the sense that
24 they weren't developing the next version of WordPerfect for
25 Windows in a way that I thought was the best way that they

1 should.

2 Q. Did anyone at WordPerfect ever tell you why you were
3 transitioned to that document viewer group?

4 A. No.

5 Q. Did you ever ask?

6 A. No, I didn't.

7 Q. Now, during this time when you were involved in the
8 SGML viewer group, that is when you wrote the e-mail to
9 somebody asking about sales strategy; is that right?

10 A. The sale strategy was when I was in the shared code
11 group, that e-mail.

12 Q. So that came --

13 A. That came in '94 or '95. Probably in '95.

14 Q. Do you remember who you wrote that e-mail to?

15 A. You know, the name Gordon Mella comes to mind. And he
16 might have been the manager of the sales group at the time.
17 If he was, that might have been the one. I don't remember
18 too many names.

19 Q. And it was your view while working as the developer in
20 the shared code group that Novell was mishandling its sales
21 strategy; is that right?

22 A. Yes. I guess that would be a safe way to say it. I
23 mean, I really didn't know the reason for the problem, but
24 our sales weren't happening. I did know that. And in the
25 trade press we were still a superior product, and so that

1 was actually the reason for the e-mail was to suggest as a
2 question, but not merely a question because this was not my
3 area. It was more of a suggestion, hey, you know, you're
4 putting pressure on us to come up with the next release
5 really soon, which we are trying to do. But, also, what
6 about hiring more salespeople in the WordPerfect side of
7 things, who were being very successful at this before?

8 Isn't that something that would make sense?

9 Q. And what's your basis for saying that they were very
10 successful at selling this before?

11 A. Because of the fact that we had great sales. Our sales
12 were higher then than they were at this point.

13 Q. Sales were higher prior to the acquisition than they
14 were at the time you wrote your e-mail?

15 A. Yes. Right.

16 Q. And what was the basis for your believing that the
17 sales were higher then?

18 A. Just because of my salary and the trade press.

19 Q. So your knowledge of the sales came from the trade
20 press?

21 A. Yes. It wasn't through company channels. But the
22 pressure that we were getting from the company, from above
23 us in the chain of command to get the product out was
24 rationalized by the fact that sales were hurting. So we
25 were getting communicated that, that sales were down, we

1 needed to save them by getting this next version out. So
2 that was some of the pressure that we were under.

3 Q. By this next version, are you referring to the release
4 for Windows 95?

5 A. Right. Yes.

6 Q. The message to you was that it was important to Novell
7 to get the product for Windows 95 available for market; is
8 that right?

9 A. That's correct.

10 Q. And is that -- well, you're working in shared code so
11 that's for the suite; is that correct?

12 A. That would have been in the suite, yeah.

13 Q. And your response was that Novell should consider
14 trying different sales strategies?

15 A. Well, that wasn't really a response. That was a
16 suggestion as another way to improve sales, because I didn't
17 believe that getting the new version out was going to make
18 as big a difference as effectively selling the current
19 version, which was still a good product. At that point it
20 was, I guess, 6.1.

21 Q. Do you know what Perfect Office 3.0 sales were like?

22 A. No.

23 Q. Was that figure published?

24 A. It probably was. I mean, they typically talked about
25 these things very openly.

1 Q. But you didn't track it?

2 A. I wasn't tracking it. Not that I can remember.

3 Q. You were just tracking WordPerfect sales?

4 A. What I was trying to do at this point was to do my job
5 in the shared code group, and -- but then when we saw these
6 e-mails coming down from above saying you need to do this,
7 and because of a previous experience that I had had, my
8 previous experience with the company, I made that suggestion
9 as a, you know, here is some food for thought kind of a
10 thing.

11 Q. Had anyone at Novell's sales group ever before
12 solicited your advice on the method by which they should
13 sell WordPerfect?

14 A. No.

15 Q. Did you share the view that it was important to get the
16 next product out?

17 A. Oh, yeah. It was important. We were all trying to do
18 that. And the view that I had of let's sell what we have
19 wasn't unique to me, either. It was a common view.

20 Q. One last question. Maybe two. I'm going through and
21 looking at your survey again. So the last time you were
22 involved in the production, the last time you were involved
23 in the design of a WordPerfect for Windows product was the
24 middle of 1992?

25 A. That's correct.

1 (WHEREUPON, the video deposition was concluded.)

2 THE COURT: All right. I will be guided by you
3 all. I think it would probably be a good idea to take a
4 stretch, but it is more important to stay on schedule.

5 MR. HOLLEY: Your Honor, I think just because I
6 have to go get Mr. Belfiore in the hall, now would be a nice
7 time to take a short break.

8 THE COURT: Why don't we take ten minutes, and for
9 you all it might be 10 minutes, so we'll break now for a
10 very short period of time for a stretch and we'll take
11 another break around 10:15.

12 (Recess)

13 THE COURT: Let's get the jury.

14 Mr. Holley, we'll stop in around 45 minutes for
15 the court reporters so just gauge that.

16 MR. HOLLEY: Yes, Your Honor.

17 (WHEREUPON, the jury enters the proceedings.)

18 THE COURT: Mr. Holley.

19 MR. HOLLEY: Thank you, Your Honor.

20 Microsoft calls as its next witness Joseph
21 Belfiore.

22 JOSEPH BELFIORE, III

23 Having been duly sworn, was examined

24 and testified as follows:

25 THE WITNESS: Joseph Belfiore, III, J-o-s-e-p-h,

1 B-e-l-f-i-o-r-e, III.

2 DIRECT EXAMINATION

3 BY MR. HOLLEY

4 Q. Good morning, Mr. Belfiore.

5 Could you tell us what your educational background is
6 starting with graduation from high school.

7 A. I graduated from high school in Clearwater, Florida in
8 1986, Clearwater Central Catholic High School. Then I got a
9 bachelor's degree in computer science from Stanford
10 University, which I graduated in 1990.

11 Q. What was your first position after graduating from
12 Stanford University?

13 A. I started at Microsoft in the summer of 1990 as a
14 program manager.

15 Q. Are you still employed by the Microsoft Corporation?

16 A. Yes.

17 Q. What is your current position at Microsoft?

18 A. I am a vice president at Microsoft responsible for
19 program management and design for Windows phone operating
20 system software.

21 Q. And just briefly, what is the Windows phone operating
22 system?

23 A. The Windows phone operating system is software that
24 runs on phone devices that provides a user experience for
25 the use of the phone, the built in phone software,

1 applications written to the phone and so on.

2 Q. Were you involved in the development of a product known
3 as Windows 95?

4 A. Yes.

5 Q. And can you tell us what your job was in connection
6 with Windows 95?

7 A. I was the lead program manager responsible for the user
8 interface and shell of Windows 95.

9 Q. And how long were you the lead program manager in
10 charge of the user interface of Windows 95?

11 A. From the summer of '92 until Windows 95 was finished in
12 1995.

13 Q. Now, directing your attention to the period 1993 and
14 1994, were there operating systems other than Windows 95
15 being developed at Microsoft?

16 A. Yes.

17 Q. Can you tell us what those were?

18 A. We had the Win 95 line of operating system software and
19 the NT line of operating system software that was higher
20 end.

21 Q. When you say it was higher end, what do you mean by
22 that?

23 A. The target audience, the types of people that would use
24 it, the scenarios in which it was used and the types of
25 computers it would run on were generally aimed to be more

1 powerful and more expensive, and in some cases server
2 computers. So that instead of using it on your desk you
3 would put it in a data center room and run a business from
4 it.

5 Q. Are you familiar with a project known as Cairo?

6 A. Yes.

7 Q. What was the Cairo project?

8 A. Cairo was a code name for one of the versions of the
9 higher end operating system based on Windows NT.

10 Q. How did Cairo relate to Chicago?

11 A. The Chicago project was aimed at a lower end, by that I
12 mean less expensive and more broadly accessible to sort of
13 regular people, the kind of software that you would run on
14 your desk in sort of conventional PC usage. Cairo was aimed
15 at a higher end type of PC with more advanced functionality.

16 Q. What was the tenor of the relationship in 1993 and 1994
17 between the Chicago team and the Cairo team?

18 A. Um, I would say that both groups were trying to do
19 innovative software development aimed at their audience, and
20 in some ways the teams collaborated and we shared ideas, and
21 in some ways the teams were a bit competitive.

22 Q. Competitive in what way?

23 A. We each worked independently to come up with designs
24 and architecture that would most appropriately solve the
25 problems for our target audience or for the target PCs that

1 we were building for. So we had disagreements about which
2 approach would be better in some cases. And I think each
3 team was motivated by seeing the work that the other team
4 did, to try to improve our software and make it better. We
5 both wanted to do a great job. We were a little bit
6 competitive about whose was better.

7 Q. Now, directing your attention to the time in which you
8 were the lead program manager for the Windows 95 user
9 interface, can you tell the jury in general terms what your
10 job responsibilities were?

11 A. Sure. As lead program manager for the Win 95 user
12 interface, I was responsible for a small team of people who
13 designed what the software would look like. So we drew,
14 using computer tools, we drew the images that we wanted the
15 engineers and the developers to actually implement in the
16 code.

17 So we would draw pictures of things like the start menu
18 and the task bar, and then we would fill out in very
19 detailed explanations how we wanted those things to work.
20 We would write specifications or a spec. And our job
21 function was to be a part of the engineering team that built
22 all of that software, but our focus was not on how the
23 software worked specifically, but on what it did and the
24 kinds of things that we directed the engineers as the main
25 priorities of that work.

1 Q. What features, if any, of the Windows 95 user interface
2 did you regard as innovative?

3 A. There were a lot of features that I would say were
4 innovative. To give you a few examples, in Win 95 we
5 created the start menu and task bar, which if you use a PC
6 today you're familiar with. The gray bar at the bottom of
7 the screen where there is a start button with a single menu
8 that let's you launch programs, and the task bar itself, I
9 would call those innovative.

10 At the time the state of the art in PC operating
11 systems didn't have a very easy to understand and always
12 visible mechanism for people to always be able to see where
13 they should click to launch a new program, or where they
14 should click to find a document, or where they should click
15 to do a search. There were a lot of usability problems that
16 we had seen in doing user tests, actually watching people
17 use PCs that, for example, the start menu and task bar
18 solved.

19 Another example we saw in older versions or in other
20 operating systems, that if people had a window open on their
21 screen, and then there was another window that would come on
22 top of it but be smaller, and if they clicked here this
23 window would come to the front and hide the other window and
24 people didn't know where it went in some cases. The task
25 bar made sure that there was a button always visible.

1 There were a lot of things like this. The ability to
2 use a two button mouse and click with your second button to
3 get a menu on any item I would say was another thing that
4 was innovative at the time to be implemented in Windows 95.

5 Q. If you right clicked the mouse button on an item, what
6 would you see in the menu?

7 A. Well, it would vary depending on what thing you right
8 clicked on. You would essentially see commands for what you
9 could do with that item.

10 Q. Were there any user interface features in Windows 95
11 that you viewed as helpful to independent software vendors?

12 A. Yes.

13 Q. Can you give us some examples?

14 A. There were a lot. When we created the design for the
15 Windows 95 user experience, we had to have in mind not just
16 the software that we would ship as part of Windows, because
17 we had to have in mind the software that third parties would
18 write its applications to as well.

19 For example, we included a very basic word processing
20 application, really almost part of the sample, but we had to
21 anticipate that people would write word processing software
22 or, you know, lots and lots of different software that added
23 many features. And so we had to think about whether there
24 were bits of software that we could write and make available
25 to these third parties writing applications so that they

1 could write their applications more quickly, less
2 expensively and in a way that would deliver a consistent and
3 friendly experience for someone using Windows 95.

4 So we created things like controls, when you use a
5 software application if you see a button, a little rectangle
6 that pushes in when you click it, a list, a tree view. We
7 created a lot of these kinds of essentially lego building
8 blocks that made it easy for developers to create
9 applications.

10 Q. Did developers have to use these lego building blocks
11 that you were providing to them in order to get that kind of
12 functionality?

13 A. No.

14 Q. What other options did they have?

15 A. When we thought about how to enable developers to write
16 applications we typically tried to think about more than one
17 sort of level of use of our software they might choose. So,
18 for example, a developer that does not have very much time
19 would choose to use a lot of our software, and that would
20 help to accelerate their process.

21 A developer that wanted to invest an awful lot of time
22 and energy could avoid using the software that we wrote, and
23 they could literally write software that draws on the screen
24 however they want, and that range of choice was available to
25 any developer on Windows.

1 Q. Was there any mechanism that you created, that your
2 team created in the Windows 95 user interface that allowed
3 users to launch applications by clicking on icons?

4 A. Sorry. Can you ask that one more time?

5 Q. Sure. Did your team create any mechanism that allowed
6 users to launch applications by clicking on icons?

7 A. Yes.

8 Q. Can you explain how that worked?

9 A. There were a number of different pieces of software
10 that we wrote that involved displaying icons, that when a
11 user clicked or double clicked on an application it would
12 launch. To give you some examples, the desktop and the
13 start menu, so the desktop is the background of the screen
14 that will have the start menu at the bottom. We wrote the
15 software so that if you click the start menu, and in the
16 programs menu or the documents menu there was an icon, and
17 if the user clicked that, depending on which thing it was,
18 the shell understood what application it was associated with
19 and it would launch that application in a separate window.

20 As another example, we had a facility in the shell that
21 drew what we called explorer Windows, and that showed you
22 the contents of the computer's hard drive or floppy drive,
23 the file system, and it would display icons for the files in
24 the file system or in those folders. And if a user double
25 clicked those, there was a facility to launch third party

1 applications.

2 Q. Let's look at what has been marked as Demonstrative
3 Exhibit 200.

4 With reference to this demonstrative, Mr. Belfiore, can
5 you point out to the jury what you were just describing?

6 A. Sure. I have this pointer.

7 So down here in the bottom is the task bar and the
8 start menu. It is part of the shell. These are the icons
9 in the desktop. This window here is the Explorer. And the
10 Windows 95 shell draws this when a user clicks on something
11 inside the start menu or you can get it by clicking on my
12 computer.

13 What this shows is we would call this our -- we had
14 different names for this, but one of the names that we used
15 internally was we called this the unified namespace or the
16 tree view. The idea was to have a consistent view. You can
17 see her at the top is the desktop. That is intended to be
18 exactly the same icons as you would see here for anything
19 that is a container. So like my computer is a container,
20 and it contains the floppy disks and the hard drive, the
21 control panel and printers and dial up networks and folders.
22 This motion of containment is shown by the indent here.

23 This is the network neighborhood, which you see down
24 here on the desktop. That is a container, and I can expand
25 it, or the recycle bin is a container. So I can click on

1 any of these things and see what is inside over here. In
2 your example if you had shown, you know, let's say my
3 documents folder with a bunch of files, word processing
4 documents or spreadsheets, they would have icons that would
5 indicate their type, and a user could double click them and
6 launch an associated application.

7 Q. Now, the jury has heard this before, but I think it
8 might be good just to set the stage. You said what the left
9 pain is called, sometimes called the tree view, what was
10 that right-hand square called?

11 A. I think we probably used lots of different names for
12 it. This was sometimes called the scope pain and this was
13 sometimes called the contents pain. There may have been
14 other names that are not popping into my mind right now.

15 Q. How, if at all, did this Windows Explorer relate to
16 viewers that had existed in Windows 3.1?

17 A. I would say it was a really significant evolution. It
18 was quite a bit more functional and usable than a similar
19 kind of thing that we had in Windows 3.1.

20 Q. Can you explain the differences at a high level?

21 A. Yes. Probably the biggest difference is in Windows 3.1
22 we were still designing our software with an idea that a
23 user would know what they were doing, and that they were
24 familiar with computers already. So in Windows 3.1 there
25 was one piece of software called the program manager, and

1 its job in life was to show you icons for programs. So if
2 you had installed a word processor you would see an icon
3 with a word processor and you would double click it.

4 One of those programs was a program called file
5 manager. It looked different than the program manager. And
6 what the file manager did was it gave you a view sort of
7 like this but not as friendly. It gave you a way to select
8 hard disks and then it showed you files, but it didn't have
9 nearly the feature completeness or the friendliness that
10 this version has. The icons were ugly. The window was
11 difficult to deal with. It was different. That was also a
12 problem. There was a program called the control panel
13 which, again, was different.

14 What we did in Windows 95 that I think was one of the
15 more significant things that made it easy for people to
16 learn to use, was that all these things sort of behaved in
17 the same way. If you selected a hard drive you would get a
18 view over here of icons and you can drag and drop them, or
19 you could right click on them and the icons were friendly.
20 If you selected printers you would get a list of icons over
21 here, and you could drag and drop them, you could right
22 click them, but because they were printers they would act
23 slightly differently.

24 In Windows 3.1 we didn't have that unified facility at
25 all. Each different thing that you wanted to deal with

1 operated differently, so it was more work and it was harder
2 to learn to use the system.

3 Q. The virtual folder there on the screen called Network
4 Neighborhood, could you tell us what that did?

5 A. Sure. The basic idea here is that the user has sort of
6 two main sources of stuff that they might open. There is my
7 computer, and that is the stuff that is actually on your
8 computer and stored on the hard drive or on a floppy disk,
9 and then there is Network Neighborhood. And the idea, even
10 the term neighborhood there, is that computers, not your
11 computer but computers that are near you, so when you click
12 that little plus to expand it you'll see in the list there,
13 or if you click on this, you'll see it in this contents pane
14 over here, icons for the other computers. And so if you're
15 in an office setting and there are people in the same wing
16 as you or the same department as you, you can see those
17 computers and you can select one. If they have shared files
18 on their computer, then you can access those in a very
19 consistent way. That was new in Windows 95. We didn't have
20 a concept that was as simple as that in Windows 3.1.

21 Q. I would like to change topics a little bit here, Mr.
22 Belfiore.

23 What is a beta version of an operating system like
24 Windows 95?

25 A. Beta means -- the way we build the operating system,

1 literally every day we take the software that the developers
2 have typed in and written and we produce what is called a
3 build. A build is you run this process and it takes a few
4 hours and it creates a thing that you can actually install
5 on your computer and run it. So we do that every day and we
6 test these builds and we find issues and bugs in them and we
7 fix them and so on.

8 A beta is choosing one of those builds and making it
9 available to some audience outside of Microsoft, so that
10 people can try it out and give us feedback and use it for
11 their own development and so on.

12 Q. If an API, an application program interface is included
13 in a particular beta release of a Microsoft operating
14 system, does that represent a commitment by Microsoft that
15 that API is going to make it to the final version of the
16 product?

17 A. I wouldn't say commitment. If there is a beta version
18 that includes an API a developer can use it, and it is
19 likely to be included in the final version but it is not a
20 commitment.

21 Q. Based on your more than 20 years of experience in the
22 software industry, what is your understanding about whether
23 beta versions of software products can change?

24 A. They definitely change. If you look at the way a
25 typical operating system development goes, there will be a

1 number of beta releases that will happen before the final.
2 And there is a trade off that you're working on as a member
3 of the team developing that software to get your work out to
4 other audiences. If you get it out early, then you get
5 feedback from them that you still have time to incorporate
6 into your design. As it gets later you have less time to
7 make changes. So when you get a beta out early there is a
8 common understanding that you're looking for feedback, and
9 what will eventually ship might be quite different. As you
10 get to the later betas there is an expectation, a general
11 common standing that there will be less changes compared to
12 the final.

13 Q. Are changes made during the beta testing process
14 restricted to changes to fix bugs that are reported by third
15 parties?

16 A. No.

17 Q. Why not?

18 A. Because as a member of the team developing the software
19 you're looking for any information that will help you make
20 it better. So your chose to fix bugs as an example, but
21 there are lots of changes that we made to alter the user
22 interface to make it easier to learn how to use, for
23 example.

24 Q. Now, I would like to put Demonstrative Exhibit 200 back
25 up on the screen.

1 Do you still have that in front of you, Mr. Belfiore?

2 A. Yes.

3 Q. With reference to this demonstrative, can you explain
4 to the jury what the namespace extension APIs in Windows 95
5 enabled software developers to do?

6 A. Sure. Okay. So the idea of the namespace extensions
7 -- this idea here on the left, the idea that there is a
8 desktop, which matches what is actually on the desktop, and
9 on the desktop is a container called my computer and a
10 container called network neighborhood. The namespace
11 extension API was designed to enable third party developers
12 to add other kinds of containers, custom containers, if you
13 will, into this space so that a user could select them and
14 see their contents over here all in this exactly identical
15 window.

16 Q. What happened when a user clicked on one of these
17 custom containers in the tree view over in the view pane?
18 What did they see?

19 A. The idea was that it would sort of visibly match what
20 one of these other ones would do. So an example is the
21 control panel, which we created. The user clicks on the
22 control panel, and over here they will see a bunch of icons
23 for the contents of the control panel. There is a standard
24 way that they can change from large icons to small icons or
25 a detailed view.

1 The idea is if a third party had added one, is that
2 there would be another icon over here and when you click it
3 now the third party code gets run. The third party code is
4 asked by the Windows shell, hey, please -- I'm going to give
5 you essentially a handle to a space on the screen -- please
6 draw over here something that would make sense in a view
7 where the user would expect to click on an icon and see a
8 bunch of icons over here.

9 Q. Was the ISV limited to the views provided by the
10 operating system in displaying its objects?

11 A. No.

12 Q. Now, was there any particular kind of application that
13 you as the lead program manager in charge of the Windows 95
14 user interface anticipated would use these namespace
15 extension APIs?

16 A. Yes.

17 Q. What class of applications was that?

18 A. Applications that wanted to display things that were
19 sets of icons. The whole point is that when people see
20 things over here they click an item and they get sets of
21 icons over here. In fact, everything that we put in here
22 had that exact behavior. You click something and then you
23 would see a collection of items. The purpose, what we would
24 say the purpose of this window in general, the Explorer, is
25 to give people a sense of the places where collections of

1 things are stored.

2 So if you click on one you can operate on a collection
3 of things in a consistent way. It was exactly to solve that
4 usability problem I described with Windows 3.1, where you
5 would have a computer that has printers in it or dial up
6 networking icons, rather than have a whole bunch of
7 different pieces of software that all act differently for
8 dealing with collections of icons. Let's build one where
9 the users' expectations can be reused across a bunch of
10 didn't scenarios.

11 Q. Did you believe that developers of word processing and
12 spreadsheet applications would have use for the namespace
13 extensions APIs?

14 A. No.

15 Q. Why not?

16 A. Because when a word processor or spreadsheet
17 application has as its intent for usage, you're looking at a
18 document. You're typing words into a word processing
19 document, or you looking at cells in a spreadsheet, and you
20 have already made a decision about which document you want
21 to do that with. You want the full screen real estate to be
22 dedicated to the function of editing the document or reading
23 the document or looking at cells in the spreadsheet. It is
24 a different task than looking at containers of icons.

25 Q. Can you give us an example of the sort of applications

1 that you anticipated would use the namespace extension APIs?

2 A. Sure.

3 Q. What example would that be?

4 A. An e-mail. An app that let's you view sets of e-mail
5 is a good example. If you look at e-mail applications
6 today, typically e-mail applications let users create
7 folders. The in box is a folder. So the metaphor matches
8 the metaphor here. There are folders or containers that
9 have lists of icons.

10 Q. Why wouldn't a user just go to the Windows file system
11 to open an e-mail?

12 A. E-mail is an interesting case, and especially in this
13 time frame, and e-mails are really generally pretty small.
14 A lot of times people will send an e-mail and it just a few
15 words or maybe even a page of text. To store that, if you
16 store it in a separate file then it is an inefficient way to
17 store hundreds and hundreds or thousands of items that are
18 that small.

19 And so typically e-mail programs are created with a
20 database that is very good at listing these things really
21 quickly and without taking a lot of space on the hard drive.
22 So for items like e-mail it makes a lot of sense to
23 architect your application in a way that does not use
24 separate files in the file system.

25 Q. What is it about an e-mail application that in your

1 view made it suitable for using the namespace extension
2 APIs?

3 A. Specifically the idea is that its usage metaphor is
4 folders of stuff that you can click to look at and then see
5 lists of icons.

6 Q. Now, for ISVs that had applications that operated on
7 files that were visible in the file system, did they need
8 the namespace extensions to provide a folder for storing
9 their documents?

10 A. No.

11 Q. How did they do that?

12 A. The file system of Windows is that facility. The file
13 system provides for folders or directories, and there is a
14 lot of APIs and support for you to create a file and save a
15 file already. And Windows itself has already provided views
16 for looking at folders like my documents or, for example --
17 the folder.

18 Q. Now, putting yourself back in 1993 and 1994, how
19 important did you as the lead program manager for the
20 Windows 95 user interface think that the namespace extension
21 APIs were?

22 A. I think they were intended to be useful for that
23 specific class of applications. And that is a subset of
24 applications, so I would say interesting but not critical.

25 Q. Did you track actual usage of Windows 95 after the

1 product was commercially released?

2 A. Informally, yes.

3 Q. And how, if at all, did your informal tracking of the
4 usage of the product effect your view later about the
5 significance of the namespace extension APIs?

6 A. I would say it effected it, because I could see what
7 people actually did in my experience.

8 Q. What conclusion did you draw?

9 A. Very few people -- in fact, I'm not sure that I could
10 name any third party developers that actually used it in
11 significant shipping applications.

12 MR. HOLLEY: Now, I would like Mr. Goldberg, if he
13 would do me the favor, to put up on the screen what has been
14 marked as Plaintiff's Exhibit 113.

15 BY MR. HOLLEY

16 Q. Now, Mr. Belfiore, can you identify for the jury what
17 this document is?

18 A. Yes. This is a slide deck or powerpoint presentation
19 that I delivered at the Microsoft Professional Developers
20 Conference.

21 Q. Mr. Belfiore, I am just going to bring you a copy
22 which, unfortunately, is black and white and harder to read,
23 but you may want it in front of you there.

24 You refereed to the professional developers conference.
25 Can you tell the jury what that was?

1 A. Sure. The professional developers conference is a big
2 event that Microsoft has roughly annually, and it is the
3 kind of thing where literally thousands of people will come
4 to a giant auditorium, and they come to learn how to develop
5 applications for the latest version of the operating system.

6 Q. In general terms what was the point of your
7 presentation that we're looking at here, Plaintiff's Exhibit
8 113?

9 A. At the time we were developing what became known
10 eventually as Windows 95, and we knew that there were going
11 to be lots of different things in the user interface, and we
12 wanted to educate developers about what those changes were,
13 and what new capabilities we were building in, so that they
14 could build applications that fit in nicely and that would
15 be consistent and easy to use.

16 Q. Now, directing your attention to the third page of this
17 document which bears the control number ending 4373, and it
18 is entitled How Do I Get There From Here? Just at a very
19 basic level, what did you mean when you said we're providing
20 new controls you can and should use?

21 A. I described this idea earlier of lego building blocks
22 that would be created that people could use to make an
23 application. What I am saying here is probably the most
24 important thing that a software developer should consider
25 and hopefully take advantage of, is the fact that we have

1 written a lot of software code that implements these
2 building blocks, for things like a button or a list box or a
3 tree view or an icon view.

4 If developers use those then end users will get a very
5 consistent experience from one application to another,
6 rather than if you go into one application and scrolling
7 works different or a right click will work here but it does
8 not work there. When software developers use these building
9 blocks, the benefit to the end customer is that applications
10 all work in a much more consistent way.

11 There are some other benefits. The software developer
12 gets the benefit of all of the engineering work that we did,
13 they don't have to do. So we would have spent a lot of time
14 really tweaking the performance of visuals to make these
15 things very smooth and very reliable, and then the developer
16 that takes advantage of those building blocks gets all that
17 benefit without having to do the work themselves.

18 Q. Now, Mr. Belfiore, directing your attention to the
19 header of this document up in the top right, can you tell us
20 when you made this presentation?

21 A. Yes. That is December of 1993.

22 Q. Now, this document is approximately -- well, it is
23 not approximately -- it is 24 pages long. Was there any
24 particular order in which you address topics in this
25 document?

1 A. Yes. The order -- this is basically the outline of
2 what I am going to talk about, so that is the order.

3 Q. Now, the second bullet point says we're enhancing
4 common dialogues.

5 What did that mean?

6 A. A common dialogue is a term that we use to describe to
7 software developers -- it is sort of the same idea as
8 controls. Controls are like small lego building blocks that
9 you put in your own UI. A common dialogue is a whole
10 rectangle of UIs that you can use in your applications.

11 The other thing is if you use a computer you're
12 probably pretty familiar with, when you say file open, there
13 is a dialogue box that comes up, file open dialogue. We
14 build one version of that that we have spent a lot of time
15 and energy making consistent with the rest of the user
16 experience, and making it fast and getting all the bugs out,
17 and that entire dialogue box is available for any developer
18 to use.

19 It is very easy for them to use. In their application
20 they literally say, Windows, I would like the user to choose
21 a file. Please handle it for me. Then we draw the dialogue
22 box and the user can do a search and browse around and all
23 this kind of stuff, you know, on their floppy drive, on the
24 network, and at the end when the user is done they click the
25 okay button, and we have saved the application, and the user

1 chose this file, go do whatever you want with the
2 application.

3 And so it is a mechanism that has controls on it for
4 ensuring that there is consistency across common things like
5 opening a file and printing a document or choosing a color.
6 Those are all examples of common dialogues. A software
7 developer can use those if they like.

8 Q. The third bullet here you say we're making it possible
9 for you to extend the shell.

10 At a general level can you tell us what you meant by
11 talking about extending the shell?

12 A. Sure. If you think back to that picture of the desktop
13 with the Windows Explorer, when software developers write
14 applications that lets new kinds of tasks be handled on
15 Windows, we want that application to fit into the shell in a
16 very natural way. So there is a whole lot of things that we
17 did that made it possible for the application to add value
18 through the shell.

19 So, for example, let's say that you have a spreadsheet
20 application or a word processing application and you had a
21 viewer that would be able to launch and display that file in
22 a very fast manner, and you could make it so that when a
23 user right clicked on those icons you got to add a command
24 to the menu that would launch into your viewer or anything
25 else that you can imagine. It created a way for the

1 expected user interface of Windows -- there are these icons
2 and they show what the thing is about, these extensions let
3 you change that icon in a meaningful way, and they let you
4 change what was in the menu when a user right clicked. They
5 let you change some of what might happen when an icon was
6 dragged and dropped.

7 We had a standard in Windows called the properties
8 dialogue. It is still in Windows today. You right click at
9 the bottom and then you typically click on an icon called
10 properties and it displays what we would call property
11 sheets. These shell extensions allowed third parties to add
12 new tabs into that property sheet. So the whole idea is
13 that this metaphor for using this Explorer and using the
14 shell can be extended by third parties so that the user does
15 not have to learn a lot of new and different things, but
16 they get new added features.

17 Q. Now, Mr. Belfiore, directing your attention to the page
18 numbered 8 at the top and that was the control number 4378,
19 and it is entitled New Controls-4. There is a reference
20 here to the tree view.

21 Can you explain what that is?

22 A. Sure. Controls generally, as I said, are like lego
23 building blocks that developers can choose to put in their
24 applications or use to build their applications, and the
25 tree view is one specific example of this. Here I'm on

1 slide number four. I have been going through four slides
2 listing controls. I'm on the last one. I am showing that
3 this is what a tree view looks like. As it says in the
4 slide -- thank you. Actually, can you move it over a little
5 bit so we can see the text?

6 As it says here, in an application you might use a tree
7 view to display hierarchies, containers or outlines.
8 Actually the outlines example is good, because this example
9 looks essentially close to, not quite identical to, the one
10 that you saw in the Windows Explorer, but a software
11 developer could use this like to draw an outline let's say
12 of a document, hypothetically, and they might not put little
13 yellow folder icons, in fact, they might not have any icons
14 at all. They might describe chapters and sections. The
15 tree view control was a bunch of software that we wrote that
16 knew how to handle an expanding and contracting hierarchy,
17 and developers could choose to use it for whatever purpose
18 they wanted to.

19 Q. Could the tree view control be used by a software
20 developer to display that Windows 95 namespace that we saw
21 in the tree view of the Windows Explorer inside the ISV's
22 application?

23 A. Yes.

24 Q. And if the ISV did that, could they add their own
25 containers to that tree view that the system displayed?

1 A. Yes.

2 Q. Now, I would like you to turn to the page internally
3 numbered 11, which is the number 4381 at the bottom, and it
4 is entitled file open, save as.

5 Can you explain what you were trying to describe here
6 on this page?

7 A. Sure. As I described earlier, there is this notion of
8 common dialogues which are, you know, rectangles on the
9 screen, little windows that get displayed in an application.
10 This is a slide that describes that to these software
11 developers that I was talking to. In this Chicago version,
12 which eventually became Windows 95, we were going to create
13 a new and much more capable and easier to use common file
14 open and save as dialogue box.

15 This image up here was a drawing that our team had been
16 building to give a software developer a sense of what it was
17 going to be like. It was the functionality I described
18 earlier, where in an application you say -- you know, a user
19 could say file open and then the dialogue box is displayed.
20 The reason I put preliminary on here is that at this point
21 in time, December of '93, we were not finished with the
22 design, and so I wanted the software developers to
23 explicitly understand that what they saw was likely to
24 change.

25 Q. Now, under the heading Explorer functionality it says

1 direct browsing of the network.

2 What does that mean?

3 A. That refers to the -- let me contrast it to Windows
4 3.1. In Windows 3.1 if a user wanted to open a file that
5 was stored on another computer, they had to perform this
6 arcane step called mapping a network drive, because the
7 software in Windows 3.1 only knew how to show you files on
8 drives. It had go be a hard disk or a floppy disk. That
9 software didn't have a concept of files that were on a
10 network because it was too early for that. So there was
11 this work around essentially, where a user could go into the
12 system and say, hey, Windows, pretend there is a drive
13 called Z colon, even though there isn't actually one, and
14 when an application or a user displays the contents of the
15 hard drive, Z colon, instead of being the contents of the
16 hard drive show the files that are on a different computer
17 on a shared directory.

18 That was problematic for users because it meant that if
19 you went into an application and you wanted to open a file
20 that was on a different computer, that application couldn't
21 show you that file until you had separately somewhere else
22 performed this arcane step of mapping a network drive.

23 We wanted to solve that problem. In Chicago and in the
24 Windows Explorer and here in the file open, although the
25 picture does not show it, we had that Network Neighborhood

1 icon, which a user could click and browse through the other
2 computers that were on their network and find files that
3 were shared and open them directly. So that is what I'm
4 referring to here as direct browser of the network. It
5 meant that you could look at the computers on the network by
6 their names and see what was shared without having to
7 manually go perform this arcane step of mapping the network
8 drive.

9 Q. Now, the third subheading under Explorer functionality
10 says context menus available on files and background
11 allowing -- does that mean file system operations?

12 A. Yes.

13 Q. What does that mean?

14 A. This is another contrast to Windows 3.1. If you look
15 at this -- actually both of these examples. In this list
16 right here you see lots of little icons that look different.
17 What I'm saying here is that on any of these file icons or
18 any of these folder icons, within this file open dialogue
19 box a user can click with the right mouse button and get
20 that same little menu. What that meant is that a user could
21 do a lot of useful and interesting things that might help
22 them to decide what files to open. I gave this example of
23 file viewers. If a user wanted to quickly bring up the file
24 viewer to see what was inside that file before they decided
25 which one they wanted to open, that wasn't possible. That

1 was not possible in previous versions of Windows. It was
2 only possible because we did the work of making this file
3 open dialogue support all of that same technology as you
4 found in Windows Explorer.

5 MR. HOLLEY: Your Honor, I am about to move to
6 another topic.

7 THE COURT: Let's take a short, a very short break
8 for the reporter, and just come back immediately as soon as
9 the reporter is ready.

10 (WHEREUPON, the jury leaves the proceedings.)

11 (Recess)

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