

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF TEXAS
3 TYLER DIVISION

3 MIRROR WORLDS, LLC * Civil Docket No.
4 *
4 VS. * 6:08-CV-88
5 * Tyler, Texas
5 *
6 APPLE, INC., ET AL * September 30, 2010
6 * 9:00 A.M.

7
8 TRANSCRIPT OF JURY TRIAL
9 MORNING SESSION
10 BEFORE THE HONORABLE LEONARD DAVIS
11 UNITED STATES DISTRICT JUDGE

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33 (Proceedings recorded by mechanical stenography,
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P R O C E E D I N G S

COURT SECURITY OFFICER: All rise.

(Jury in.)

THE COURT: Please be seated.

All right. Good morning, Ladies and
Gentlemen of the Jury. Welcome back.

This is our last day of testimony. We
should finish, if everything goes according to plan.

So with that, we will proceed,
Mr. Randall, with your next witness.

MR. RANDALL: Your Honor, Apple's next
witness is Mr. Nitin Ganatra.

THE COURT: Okay.

MR. CARROLL: Your Honor, could we have
our time before we get to cranking this morning?

THE COURT: I thought I had given that to
y'all yesterday.

MR. CARROLL: I don't know if we --

THE COURT: All right. It's Plaintiff
has used 9 hours and 50 minutes, and Defendant has used
just short of 8 hours -- 7 hours and 56 minutes.

MR. CARROLL: 50 or 9/15.

THE COURT: 9/50.

COURTROOM DEPUTY: Please raise your
right hand to be sworn.

1 (Witness sworn.)

2 NITIN GANATRA, DEFENDANTS' WITNESS, SWORN

3 DIRECT EXAMINATION

4 BY MR. RANDALL:

5 Q Can you tell us your name for the record,
6 please.

7 A My name is Nitin Ganatra.

8 Q Where do you live?

9 A San Jose, California.

10 Q And what is your current occupation?

11 A I'm the Director of Engineering on the iPhone
12 operating system at Apple.

13 Q Can you provide some of your background,
14 including when you started at Apple?

15 A I started at Apple in January -- in April of
16 1993. I -- I initially started in -- in Developer
17 Technical Support and moved into Engineering two years
18 later -- Software Engineering two years later.

19 Q As the manager of iPhone applications team, do
20 you have knowledge of the implementation of Coverflow in
21 iPhone and iPod Touch?

22 A Yes, I do.

23 Q Do you have knowledge of the implementation of
24 Coverflow in the iPod Touch, iPod Nano, and iPod
25 Classic?

1 A I do.

2 Q And I want to ask you some questions. This --
3 this -- one of the allegations by Plaintiff is that
4 Apple has this receding foreshortened stack.

5 And I want to ask you, are you knowledgeable
6 about the source code for Coverflow in these products
7 that we just mentioned?

8 A Yes, I am.

9 Q So you know how Coverflow works kind of under
10 the hood, so to speak, in these products?

11 A That's correct.

12 Q All right.

13 A Yes, I do.

14 Q Are you aware that Plaintiff has accused
15 Coverflow in Apple's iPhone, iPod Touch, and other iPods
16 of infringing its patents?

17 A Yes.

18 MR. RANDALL: Can you pull up NG1,
19 please?

20 Q (By Mr. Randall) All right. What does this
21 slide reflect, sir?

22 A So this slide shows an iPhone tipped on its
23 side, and in -- in view on the screen is the Coverflow
24 user interface.

25 In addition, there are two parallel lines, two

1 red lines along the top edge of the albums and another
2 line along the bottom edge of the albums.

3 Q Do -- the album covers that are displayed here
4 in Coverflow, do they get shorter as they get closer to
5 the sides of the view?

6 A No, they do not. And -- and you can see that
7 by looking on the -- the left side of the screen. It's
8 easiest to see where the -- the white tips of the albums
9 are sticking up over the red line, the same distance
10 that the tips of the albums that are closer to the
11 center are sticking up.

12 Q Okay.

13 A I'm sorry. That's the left edge. I think I
14 said right.

15 Q Now, do the album covers that are displayed
16 here in cover -- Coverflow, do they get further away
17 from the screen as they get closer to the sides of the
18 display?

19 A No, they do not.

20 Q How do you know that?

21 A I know that from looking at the source code.

22 Q All right. You've reviewed the source code
23 and confirmed that?

24 A Yes, I have.

25 Q Is -- the position of the album cover in

1 Coverflow, is that meant to indicate time-order?

2 A No, it does not.

3 MR. RANDALL: Can you pull up DX1017 at

4 Page 620 and 621?

5 Can you go to Page 620 and go down to the

6 bottom at Line 1529?

7 Q (By Mr. Randall) Do you recognize this as

8 source code, sir --

9 A Yes.

10 Q -- for those products?

11 A Yes, I do.

12 Q And I want to direct your attention to

13 Line 1529.

14 What does that do?

15 A So that is the declaration for a -- a

16 routine -- for a piece of code that -- that sets the --

17 it sets the Coverflow view so that you're viewing the

18 album that is at a particular index. That's indicated

19 by the number.

20 So you'll see the words, set new selected

21 index, and right after that, you see new index, which is

22 a number. And that number indicates which album within

23 the series of albums should be the one that's in the

24 center of the display.

25 Q All right. And is this source code among the

1 source code that you reviewed to confirm the conclusions
2 that you've reached that you've already testified to?

3 A Yes, it is.

4 Q All right.

5 MR. RANDALL: Let's go to the next page.

6 And, Diane, if you can highlight these
7 lines of code, 1559, 1563, 1557, and 1590.

8 If you could span that slightly so we can
9 at least have a chance of seeing it, including -- okay.

10 Q (By Mr. Randall) So I realize that you
11 reviewed more code than this, but I'm asking you
12 specifically with respect to this code, what does this
13 code show?

14 A So what this code shows is the -- you'll
15 notice that there is a -- a dot Z right after the -- the
16 word covers. And then there are the open brackets with
17 an I. There's a dot Z there, and then after the equals,
18 there's a covers, open bracket, a gold Z. The most
19 important part of both of those is that -- is that Z is
20 the -- the axis that's being set in this -- in that
21 particular line.

22 And that Z axis is always set to 0. That's --
23 it's always set to -- in 1559, it's always set to 0.
24 It's -- the same thing happens in Line 1567. It's
25 always set to 0. The Z axis is set.

1 And 1563, the -- the -- again, the Z axis is
2 being set for the selected cover, but there's -- it's a
3 constant value that's used for -- to assign the covers
4 to that -- to assign the Z axis to those covers.

5 Q Okay. Now, with respect to the positioning
6 and sizing of the album covers in Coverflow that you
7 just testified to, is Coverflow the same for iPhone,
8 iPod Touch, and other iPods?

9 A Yes, it is.

10 Q All right.

11 MR. RANDALL: Go back to NG1, please.

12 Q (By Mr. Randall) So the code that we looked at
13 and the code you also looked at previously, in addition
14 to those specific lines we just went through, what does
15 that tell you with respect to the positioning of these
16 album covers?

17 A What that -- what that tells me is that the --
18 the albums are all on the same Z axis. They're all on
19 the same plane, and -- but specifically by plane, what I
20 mean -- the easiest way to think of -- of a plane is to
21 think of it as a -- as a flat, smooth -- completely
22 smooth wall.

23 And it's not necessarily drawn, but it is, for
24 the purposes of geometry, a -- a flat, smooth wall. And
25 by -- by setting those values of those -- of those

1 covers all to 0, it means that the albums themselves are
2 all attached to the wall in the same -- in the same
3 position. So they're all attached to the same -- in the
4 same way to this flat wall.

5 And because of that, what that means is that
6 the albums do not recede into the distance as you move
7 away from the center. They're always on the same --
8 they're always on the same axis. They're on that same
9 plane, that same wall, and so, therefore, they don't
10 recede.

11 Q Okay. And do -- the iPhone, iPod Touch, and
12 other iPods, do they utilize a cursor or pointer?

13 A No, they do not.

14 Q Do they show a glance view as required --

15 MR. RANDALL: Strike that.

16 Q (By Mr. Randall) Do they show a glance view?

17 A No, it does not.

18 Q And how does the user interact with the
19 devices, then, if they don't use a cursor or pointer
20 that moves around?

21 A So instead of using a cursor or pointer or
22 something like that, it's -- you use direct
23 manipulation. You use your finger, and you're actually
24 touching the screen.

25 So where a cursor or a pointer is -- is -- is

1 something that -- that represents the mouse that -- that
2 normally sets alongside of a computer, and the cursor
3 is -- is the little arrow that moves around.

4 There's no such thing on the iPhone. It's
5 just -- you just use your finger. It's a very direct
6 form of -- of changing your view.

7 Q Okay.

8 MR. RANDALL: Can you play Clip 51A,
9 please? It's DX51A.

10 (Video clip playing.)

11 (Video stopped.)

12 Q (By Mr. Randall) All right. And what does the
13 video we just saw, DX51A, demonstrate?

14 A So what that showed was an iPhone, again
15 tipped on its side, which brought up the Coverflow view.

16 And in order to change what album you were
17 viewing on that -- on that -- that shelf of albums, you
18 use your finger to directly change what -- what albums
19 are -- what album is actually in the center.

20 And you could see that by swiping your finger
21 in either direction, the albums swipe back and forth to
22 follow your finger.

23 Q Now, does the -- do -- any of those products
24 that we just mentioned, do they ever display a glance
25 view when the Coverflow changes?

1 A No, they do not.

2 Q Before this case, Mr. Ganatra, were you ever
3 aware of a product called Scopeware or Lifestreams?

4 A No, I was not.

5 Q Before this case, were you aware of
6 Dr. Gelernter?

7 A No, I was not.

8 Q Before this case, were you aware of Mirror
9 Worlds Technologies?

10 A No.

11 Q Before this case, were you aware of any of
12 Mirror Worlds' patents?

13 A No, I was not.

14 MR. RANDALL: No further questions, Your
15 Honor.

16 THE COURT: All right. Cross-exam.

17 CROSS-EXAMINATION

18 BY MR. STEIN:

19 Q Good morning, Mr. Ganatra.

20 A Good morning.

21 Q The term, receding foreshortened stack, isn't
22 a technical term in computers, is it?

23 A Not to my knowledge.

24 Q It's a visual effect, correct?

25 A It's -- it's hard for me to say. I mean,

1 it's -- it sounds like it's a description of -- of -- of
2 some items.

3 Q It's a description of something being
4 displayed, right?

5 A Yes.

6 Q And the jury here can assess that effect by
7 looking at the image being displayed, right?

8 A Yes.

9 Q There are -- there's -- there's software on
10 the iPhone that doesn't cause images to be displayed,
11 correct?

12 A I'm -- I'm sorry. Can --

13 Q There's other software on the -- on the iPhone
14 that doesn't cause an image to be displayed, correct?

15 A There is -- I -- I apologize. You're saying
16 there is other software --

17 Q Let me restate it.

18 A Sorry.

19 Q There's some software that causes that image
20 to be displayed, right?

21 A There is other software that causes the --

22 Q Let's start again. Sorry.

23 You pointed to some software that displayed
24 the -- that was displaying the image of Coverflow on the
25 iPhone, right?

1 A Yes.

2 Q And that -- that software causes an image to
3 be displayed, right?

4 A Sure. Yes.

5 Q And there's other software on the iPhone that
6 performs other functions on the iPhone, which would not
7 cause an image to be displayed, right?

8 A Yes. There is lot -- there is quite a bit of
9 software that runs on the iPhone, yes.

10 Q And in order to understand really what that
11 software is doing, you need to look at -- to understand
12 the functionality of that software, you need to look at
13 the source code, correct?

14 A Yes.

15 Q But here we're looking at a visual effect,
16 which you can determine by looking at the display on the
17 screen, right?

18 A That's correct. We also did look at source
19 code.

20 Q Right.

21 Again, in this particular instance, the jury
22 can assess for itself whether the image on the screen is
23 a receding foreshortened stack without looking at that
24 source code, right?

25 A I -- I believe they can.

1 Q And in that display that you -- that we just
2 saw, the center -- the image in the center is larger
3 than the images to the sides of the center, correct?

4 A The -- the one image that is in the center
5 is -- is larger than all the other images, but the other
6 images are all the same size.

7 Q All right. And as you move out from the
8 center to the side, the angle of the top edge is
9 decreasing, correct?

10 A The angle of the top edge?

11 Q Of each -- of each image in the stack is
12 becoming shallower, correct?

13 A It would be hard for me to say. We would have
14 to go look at the source code to -- to confirm that.

15 Q But if you can see it with your eyes, then the
16 answer would be -- if the jury looks at it and sees it
17 with their own eyes --

18 A Uh-huh.

19 Q -- then they can trust their eyes. If it's
20 getting shallower, then they don't need to look at the
21 source code to figure out that it's getting shallower,
22 right?

23 A That's true. That's true.

24 Q Now, you used the term glance view a moment
25 ago. Glance view is a term that's in the claims of the

1 patent -- of Dr. Gelernter's patents which are at issue
2 here.

3 Are you aware of that?

4 A I am, yes.

5 Q Have you studied those patents?

6 A No, I haven't studied them. No.

7 Q Do you know what the Court's -- the Court in
8 this case had construed those terms.

9 Do you know what the Court's construction of
10 the term glance view is?

11 A I -- I believe that the -- the -- not -- not
12 exactly. I mean, I could -- I could guess, but probably
13 not exactly.

14 Q Thank you.

15 THE COURT: Redirect?

16 MR. RANDALL: No questions.

17 THE COURT: All right. You may step
18 down.

19 All right. Who will be your next
20 witness?

21 MR. PLATT: Apple calls John Hornkvist.

22 THE COURT: John who?

23 MR. SOOBERT: Hornkvist,

24 H-O-R-N-K-V-I-S-T.

25 COURTROOM DEPUTY: Please raise your

1 right hand and be sworn.

2 (Witness sworn.)

3 JOHN MARTIN HORNKVIST, DEFENDANTS' WITNESS, SWORN

4 DIRECT EXAMINATION

5 BY MR. SOOBERT:

6 Q Good morning, Mr. Hornkvist.

7 A Good morning.

8 Q Could you state your name for the record,
9 please.

10 A John Martin Hornkvist.

11 Q And where are you from?

12 A I'm from Gothenburg, Sweden.

13 Q And where do you live now?

14 A At Cupertino, California.

15 Q And can you just briefly describe your
16 educational background?

17 A I have a master's of science in computer
18 engineering from Chalmers University of Technology.

19 Q And what -- are you working at Apple now? Are
20 you employed?

21 A I'm an employee of Apple.

22 Q When did you start working at Apple?

23 A I started in 2003, in August.

24 Q Are you familiar with Spotlight?

25 A I am. I am the manager Of the Spotlight Team.

1 And before that, I was the liaison between the Mac OS 10
2 Performance Team and the Spotlight Team.

3 Q Can you pull the microphone down a little bit
4 and speak into it so we can hear you? Thank you.

5 And what do you do in that role of
6 responsibilities?

7 A I write a lot of the Spotlight code. I lead
8 the other engineers that are working on Spotlight in
9 their jobs. I deal with other teams, coordinate and
10 prioritize work.

11 Q Okay. And so you said you write code, and
12 you're familiar with the code?

13 A I am very familiar, yes. Before I was manager
14 of the team, I was technical lead, which meant that I
15 was in charge of basically most of the technical
16 decisions about how the system works.

17 Q All right. And so the code defines how
18 Spotlight operates?

19 A The code is how Spotlight works.

20 Q All right.

21 MR. SOOBERT: Diane, can you bring up
22 JH1?

23 Q (By Mr. Soobert) Mr. Hornkvist, can you just
24 briefly tell me what's shown here?

25 A Sure. So we are seeing a high-level

1 description of -- of Spotlight. You see that we have a
2 hierarchical folder system, which is just part of Mac OS
3 10. And we have the Spotlight Store, which is a content
4 index and a Metadata Store. And then we have a search
5 interface.

6 Q Okay. So Apple uses a hierarchical file and
7 folder system that's shown there in the upper left-hand
8 corner?

9 A Yeah, we do.

10 Q Okay. How long have they used that?

11 A Since the Macintosh first came out, probably
12 1984.

13 Q For decades?

14 A For decades, yes.

15 Q Okay. And the Spotlight Store that's at issue
16 in this case is -- is on the bottom part of that screen,
17 right?

18 A Right. Yes. That's the content index in the
19 Metadata Store.

20 Q Okay. And if I wanted to sort of look under
21 the hood, so to speak, of the computer and understand
22 how it operates, I'd like at the source code, right?

23 A Yes, absolutely.

24 Q Okay. Before we -- before we do that, let's
25 talk just briefly about the architecture of the

1 Spotlight Store so we all understand what we're dealing
2 with.

3 Can you just describe what's -- what's in that
4 store?

5 A Yeah. So the -- the Spotlight Store contains
6 metadata, that is, data about files, things like the
7 author of a document and other sort of descriptive data
8 about the things that you have in your system.

9 And then the content index is a way of -- by
10 terms in your documents, by words in your document,
11 locating them.

12 So if you -- you were looking for, you know,
13 your tax return, or hopefully in that document you have
14 the word tax return -- or the words tax return, so you
15 give that to Spotlight, and we locate your tax return
16 for you.

17 Q Okay. Now, does Spotlight Store any documents
18 itself?

19 A No. Spotlight is not responsible for storing
20 documents. The file system does that.

21 Q Okay. So even though it says Spotlight Store,
22 that's -- it's not a place where documents are stored?

23 A No, no. No, it's not. It's -- we store data
24 about documents. We don't store documents.

25 Q And that data is reflected in one, the content

1 index and that metadata index?

2 A It's reflected in the Metadata Store. That's
3 where we keep it, and we -- we index some of that
4 metadata in the content index.

5 Q Okay.

6 MR. SOOBERT: Diane, can we go to JH2,
7 please?

8 Q (By Mr. Soobert) Okay. Could you just briefly
9 tell us what this shows?

10 A Yes. So what shows here is, we have a system
11 that has two separate hard drives. One -- so Folder
12 System 1 is the built-in hard drive in your Macintosh.

13 And Folder System 2 is an external drive
14 you've connected.

15 And what we see is that they're actually two
16 separate Spotlight Stores, one for the integrated drive
17 and one for the external drive.

18 And then the search interface will coalesce
19 and show the results together.

20 Q Okay. So in this example, one -- one of those
21 Spotlight Stores would have some of the documents
22 indexed that would be accessible by the system, and the
23 other Spotlight Store would have whatever documents
24 could be accessible through a separate volume drive on
25 the computer; is that correct?

1 A That is correct, yes. We don't actually have
2 the document, as I said before. We have the data about
3 the document.

4 Q Right.

5 Okay. And this slide -- in this next slide in
6 this series of slides we're looking at, are these
7 accurate representations of how Spotlight operates?

8 A These are accurate at a very high level.

9 Q Okay. And we'll go drill down in just a
10 second.

11 And these are consistent, the architecture and
12 the operation we're discussing today, with how Spotlight
13 is actually reflected and runs in the code, right?

14 A That is correct.

15 Q Okay.

16 MR. SOOBERT: Let's go to JH3.

17 Q (By Mr. Soobert) Okay. Now, this is just
18 highlighting the Spotlight Store, and we've seen that
19 there's -- there's the index and the Metadata Store?

20 A Correct.

21 Q Okay.

22 MR. SOOBERT: Let's go to JH4.

23 Q (By Mr. Soobert) Now, so I want to focus on
24 the aspect of the Spotlight Store right now on the
25 Metadata Store in this so-called database.

1 MR. SOOBERT: So --so let's look at the
2 next slide, 5.

3 Q (By Mr. Soobert) And describe here for me, if
4 you would, what is being shown.

5 A Okay. So what we see here is, we have a
6 database. In that database, we have pages. The data is
7 separated onto pages. So -- and on each page objects
8 are -- we have database objects, which represent -- each
9 represents a file in your file system.

10 And Object ID 1 here is a file called
11 Football.pdf, and that's on Page 1. Then you see on
12 Page 2 we're starting with OB number 5. Page 3 happens
13 to start with Object ID number 9.

14 And as you can tell, we have some metadata on
15 here. We have the size; we have the date. And you can
16 also see that there's no -- the order is simply by
17 object ID here.

18 Q Okay. Does this demonstrate that the -- the
19 Spotlight Metadata Store is organized by object ID and
20 not time?

21 A Yes, it does.

22 Q Okay. And you understand Mirror Worlds is
23 contending that the Spotlight Metadata Store maintains
24 documents in a chronological order?

25 A That's not correct.

1 Q Why is that not correct?

2 A Because it's ordered by the object identifier,
3 which is a number the file system assigns to the files,
4 and that number increases each time a file is added, but
5 it has nothing to do with the date on the files.

6 And once you have used up all available
7 numbers, it starts over from the bottom of the number.
8 It starts over at 1 and tries to look for the next
9 unused file ID.

10 Q Okay. So Apple, through the Spotlight Store,
11 tracks it by object ID --

12 A By object ID.

13 Q -- which is not tied to time?

14 A That's correct. It's not tied to time.

15 Q Okay. And then -- how do you know that again?

16 Is that in the source code?

17 A That is in the source code, right.

18 Q Okay.

19 MR. SOOBERT: Diane, let's go to DX1017,
20 please, and go to the second page, please.

21 And this is tough to read. Let's go to
22 the next page, please, Line 4178 at the bottom.

23 Just highlight that, please.

24 Q (By Mr. Soobert) And this -- this is actual
25 source code, the computer instructions taken from the

1 Macintosh operating system, right?

2 A Yes. This is from the Spotlight project.

3 Q Okay. Can you describe what's shown there? I
4 mean, this looks pretty technical, but can you sort of
5 try to explain this to me?

6 A Sure. So this is a function in the source
7 code that inserts a new database object -- that's what's
8 called the ndbo for new database object -- into the
9 DataStore.

10 On the page which has the page number here
11 with PG -- yeah, this is -- this is the top of that
12 function.

13 MR. SOOBERT: So let's go to the next
14 page of this, Diane, Lines 4218, please.

15 4218, 4219. We'll look at 4224 in a
16 second.

17 Q (By Mr. Soobert) And what does this tell us
18 right here?

19 A Okay. So what we're looking at here is the
20 section of the code that finds the right spot in the
21 database page to insert a new database object. So that
22 would be the ndbo.

23 And it does that by the object identifier,
24 which we have shortened to OID. And this is -- this is
25 what we call a loop. It starts by comparing, to make

1 sure that we're not already at the end of the page. And
2 then it compares the object we're currently looking at.
3 That would be the dbo to the new one we want to insert.

4 And if the object identifier of the new object
5 is greater than the object identifier of the object in
6 this spot on the page, we call this thing the next dbo
7 that gets -- that basically calculates where the next
8 database object on the page is.

9 We move forward to that object, and then we
10 compare the -- that object to the new dbo. And then we
11 proceed like that until we find the right slot -- the
12 right spot on the page to insert the object.

13 It's basically like trying to put a book in a
14 bookshelf. If you have your books sorted by author, you
15 start at one end and you browse through them until you
16 get to the proper letter, and then you insert the book.

17 Q Right. And then in that analogy, those books
18 are arranged by object ID?

19 A Right.

20 Q That's how they are tracked, and those aren't,
21 again, in any kind of time-ordered sequence; is that
22 right?

23 A Right.

24 MR. SOOBERT: Let's go to JH6, please.

25 Oh, I'm sorry. Can we go back to that

1 prior exhibit just real quick? And that's DX1017.

2 Okay. Go back to that third page,
3 please, and that one line, 4224.

4 Q (By Mr. Soobert) And what is -- what does this
5 part of the code tell us?

6 A So this is a comment that the developer who
7 wrote this inserted, saying that we should check that
8 the object isn't already existing. And if it already
9 exists, we'll return with an error so that we don't
10 accidentally insert the same thing twice.

11 Q Now, is there any kind of time mechanism -- I
12 mean, tiebreaker mechanism in here?

13 A In here?

14 It's only the object identifier, no tiebreaker
15 is needed. Object identifiers uniquely identify one
16 file in the file system.

17 Q Right. So Spotlight uniquely identifies
18 each -- each document based on that object identifier,
19 and it doesn't need to look to any other data to break
20 any kind of tie, because there are no ties, right?

21 A There cannot be a tie on a single file system.

22 Q Okay.

23 MR. SOOBERT: Diane, can you bring up
24 JH -- JH6, please?

25 Q (By Mr. Soobert) Now, I just want to briefly

1 focus on this content index. This was the other index
2 that was relevant to the Spotlight Store.

3 MR. SOOBERT: Can we go to the next
4 slide?

5 Q (By Mr. Soobert) And -- and what does this
6 tell us and show?

7 A So this shows how data is organized in the
8 term index, and you will have -- you have terms, and for
9 each term, there is a -- there's -- basically, there's a
10 circle in this tree corresponding to a term.

11 Q Okay. So this is the part of the code that
12 actually, as I start typing into the Spotlight window,
13 starts pulling up the words. This is how it does it
14 through this tree structure?

15 A Yeah.

16 Q And this part of Spotlight or the content
17 index is likewise not ordered by time. It's simply this
18 data tree structure?

19 A Yeah. This is stored in an order that would
20 be alphabetical.

21 Q Okay. So it's alphabetical and not by time?

22 A Yeah.

23 Q Okay. There's no time-ordering to it at all,
24 right?

25 A To this, there is no time-order.

1 MR. SOOBERT: All right. Let's go to

2 DX290, please, Page 3.

3 Q (By Mr. Soobert) Now, do you understand that
4 Apple's search technology provided the bases and
5 framework of the content index we just looked at for
6 Spotlight?

7 A Yeah; that's correct. In Mac and Tiger, we
8 used the SearchKit, which was an evolution of something
9 called Twin that was developed by Apple's Advanced
10 Technology Group sometime in the early '90s.

11 Q Okay. In that first paragraph there under
12 these figures --

13 MR. SOOBERT: Can you blow that up,
14 Diane? It starts with the content index.

15 Q (By Mr. Soobert) And that statement there
16 essentially -- I'm paraphrasing -- reflects that the
17 content index is built using an evolved and optimized
18 version of SearchKit, which is that preexisting
19 technology you discussed?

20 A Yeah, that's correct.

21 SearchKit was introduced as a developer API in
22 Panther, but had existed and was -- had been used
23 internally at Apple for many years before that.

24 Q Okay. And this document, this is the Apple
25 document that Apple provides to software developers?

1 A That's correct.

2 Q Okay. So they can understand how -- how the
3 source code operates and what-not?

4 A Yeah.

5 Q Okay.

6 A That's -- this is for them to understand how
7 to write their programs.

8 Q Okay. Now, let me ask you a couple of
9 specific questions about the operation of Spotlight.

10 Now, does Spotlight -- does the Spotlight
11 index index everything?

12 A No. The Spotlight index avoids indexing
13 things we don't think will be useful for the user,
14 because there's quite a significant cost in indexing.

15 Q All right. And what kinds of things are
16 excluded from the index?

17 A The first thing is temporary files, files that
18 just come and go. Then there are files that we regard
19 that are private to a program that users are not really
20 intended to deal with.

21 You might have -- I guess a good example would
22 be any application that deals with a collection of files
23 but provides like a unified interface to them.

24 For that, we wouldn't let you find those --
25 those -- that collection of files. We would only let

1 you find the top-level unified document.

2 Q Okay. Now, the types of those documents that
3 are excluded from the Spotlight index that aren't -- you
4 know, there's some subset of documents, are there some
5 pretty significant documents that might be excluded,
6 like privacy-related documents or something?

7 A Yes. We have a feature that lets you exclude
8 files that you don't want people to find on your
9 computer. We call that Privacy.

10 Q Okay. So if I have like tax returns and my
11 billing statements and documents that have my Social
12 Security number, these are like my most important and
13 sensitive documents?

14 A Yeah. So it's very common that you would add
15 those to Privacy to keep someone from accidentally
16 bumping into them or someone that just gets -- happens
17 to gain access to your machine to quickly find them.

18 Q Okay. Then those documents wouldn't be
19 indexed by Spotlight nor, by definition, returned in any
20 kind of Spotlight search results?

21 A Yes. In fact, we actually actively remove
22 them from our index, if they were already were indexed
23 and you were to add them to the Privacy setting.

24 Q Okay.

25 MR. SOOBERT: Can you move to show JH8?

1 Q (By Mr. Soobert) In this slide here, does this
2 reflect this Privacy exclusion that keeps the private
3 documents out of Spotlight?

4 A Yeah, that's correct.

5 Q Okay. All right. Let's talk for a second
6 about potentially future documents.

7 Does the Spotlight Store include any -- store
8 documents by future date?

9 A No. We don't have any understanding of the
10 data that we store really. We just store what we're
11 told by applications to put in there, and we order it by
12 the object identifier.

13 Q Okay. And so if I run the Spotlight search
14 and then I want to sort the results by date, can I sort
15 those results by future dates, some date out in the
16 future?

17 A To my knowledge, in the user interface we
18 provide, there's no way of doing that.

19 Q Okay. So just as an example, if I have
20 something on my calendar in that iCal application, okay,
21 that's out on my computer and I put I'm going to
22 vacation in a week, that's a future reminder or just an
23 object that I put into my system, right?

24 A Yeah.

25 Q Okay. And I run a Spotlight search and I just

1 type in the word vacation, does that -- does that object
2 pop up?

3 A That object will show up, yes.

4 Q Yes. And will that date, that date in the
5 future, show up in the -- or be able to be
6 searched on -- sorted on in the search results?

7 A You're talking about the Finder here or --

8 Q Yeah. I'm talking about the general file --
9 Spotlight operation.

10 A Oh, no. As far as I know, there's no way of
11 sorting on that.

12 Q So there's no way of sorting on a future date
13 in Spotlight; is that right?

14 A That is my understanding, yes.

15 Q Okay. And what are the dates in Spotlight
16 that could be, you know, sorted on or the date created,
17 last opened, and date modified; is that right?

18 A That is correct, yes.

19 Q Okay. So now let's talk real briefly about
20 this CFUUID.

21 Do you know what that is?

22 A CFUUID is essentially a 16-character --
23 16-letter -- I guess we can call it a 16-letter word
24 that lets you uniquely identify something.

25 Q Okay. And you understand Mirror Worlds

1 contends that CFUUID is used somehow to break ties
2 between two documents in a -- in the same volume on the
3 computer.

4 Is that -- is that true?

5 A For this same volume, the object identifier is
6 always enough to break the tie.

7 Q Okay. And that's in the source code, right?

8 A That's in the source code, yes.

9 Q Okay. And you just can't look at the screen
10 and look at Spotlight from the user perspective and
11 figure out how that operates, right?

12 A We try very hard to hide how it works under
13 the cover.

14 Q Right. So the user doesn't have to worry
15 about what's underneath the hood, and that's how --
16 that's how the source code in Spotlight operates, right?

17 A Yeah. The source code is what defines how it
18 works, and the user interface is often entirely removed
19 from that operation.

20 Q Okay. Now, if Mirror Worlds has questions
21 about that and they want to ask somebody about how that
22 source code operates, you're one of the very best people
23 to ask that, right?

24 A Yeah, I would be the person to ask about that.

25 Q All right. Well, let's see hear what they

1 have to say.

2 MR. SOOBERT: Pass the witness.

3 CROSS-EXAMINATION

4 BY MR. STEIN:

5 Q Good morning, Mr. Hornkvist.

6 A Good morning.

7 Q You've testified that the files are not stored
8 in the Spotlight Store; is that correct?

9 A That is correct.

10 Q But there's information in the Spotlight Store
11 that would enable you to find the corresponding file for
12 the metadata that's in the Spotlight Store; isn't that
13 true?

14 A The object identifier will let you find the
15 corresponding item in the file system.

16 Q So you can go from the information in the
17 Spotlight Store to the corresponding file in the file
18 system, right?

19 A Normally that is true.

20 Q And you -- as you said, you do that just
21 through that object identifier, right?

22 A Right.

23 Q When a typical customer buys a Mac computer,
24 how many disk drives does it have in it?

25 A Typically, it has one disk drive, though it's

1 becoming more common to have multiple ones because of
2 the Time Machine feature.

3 Q The Time Machine feature is an external disk
4 drive. It requires an external disk drive, correct?

5 A Internal or external.

6 Q It's still typically is -- the Mac computers
7 are sold with one disk drive, correct?

8 A It's my understanding that most Macintoshes
9 are sold with one disk drive, though I don't work in
10 marketing, so I don't actually have sales figures.

11 Q And it would be one Spotlight Store for that
12 one disk drive, correct?

13 A That depends on whether the user has asked for
14 one or more stores. So it's very, very common for our
15 users to have -- to use partitioning, which allows you
16 to divide the drive up into multiple pieces. And then
17 there would then be one Spotlight Store for each of
18 those pieces of the hard drive.

19 Q Out of the -- out of the box, the -- the disk
20 drive on the Mac would have one partition, right?

21 A I believe it comes with one partition called
22 Macintosh HD.

23 Q Thank you.

24 I think Mr. Soobert asked you if it was your
25 understanding that it's Mirror Worlds' position that the

1 Metadata Store is arranged in chronological order; is
2 that right?

3 A That --

4 Q I'm just asking you if Mr. Soobert asked you
5 that question, if it was your understanding that it is
6 Mirror Worlds' position that the Metadata Store in
7 Spotlight is arranged in chronological order.

8 A I don't think he asked me that question.

9 Q Do you know what Mirror Worlds' position is
10 with respect to infringement by Spotlight in this
11 litigation?

12 A Not in detail, no.

13 Q And the Metadata Store is just one component
14 of the Spotlight Store, right?

15 A It's one of the two major components.

16 Q And there's something called the Spotlight
17 server in Spotlight. Are you familiar with the term
18 Spotlight Server?

19 A I -- there are a couple of things you might be
20 referring to. One is the Spotlight server process.

21 Is that what we're talking about?

22 Q Yes.

23 A Okay.

24 Q And the Spotlight server process -- by the
25 way, before I ask that question, are you familiar with

1 the term Spotlight engine?

2 A It's one of many descriptions that people use
3 about Spotlight.

4 Q And that would include this Spotlight Server
5 process, correct?

6 A It might, yes. It's not a clear term in that
7 sense.

8 Q And the Spotlight server process controls
9 access to the information within the Spotlight Store,
10 correct?

11 A The Spotlight server process is the component
12 that essentially uses the Metadata Store and the content
13 index and controls access to it, makes sure that other
14 users can't see documents that belong to you and so
15 forth.

16 Q So this Spotlight server process is the way in
17 which other programs within Apple's operating system
18 gets access to the Spotlight Store, correct?

19 A Yes. In the sense that they use a programming
20 interface that we call metadata framework, which takes
21 the program's request and sends it on to the server.
22 But that's entirely hidden from the user or from the
23 software developer.

24 Q The -- the -- right. Thank you.

25 And the -- you mentioned the application

1 programming interface. That's how developers would
2 interact -- get their programs to interact with this
3 Spotlight Store, correct?

4 A That is correct.

5 Q So the programmers don't need to know what's
6 going on inside the Spotlight Store; they interact with
7 it through this API, application program interface,
8 right?

9 A That's correct.

10 We recommend certain ways of using it to
11 improve performance; but beyond that, they don't need to
12 know much to make it work correctly.

13 Q Now, you're aware that in Leopard, metadata
14 was added to the content index, correct?

15 A Yes. I did a large part of that work.

16 Q And that metadata includes time-based
17 metadata, correct?

18 A That includes -- yeah. That included numbers,
19 dates, strengths, and true/false values.

20 Q And the reason it was added was so that this
21 time-based metadata could be -- before I ask that, and
22 that time-based metadata includes things like content,
23 last updated, timestamp, type-in, you know, information
24 like --

25 A It -- as far as I recall, it contains very

1 little date information for most files, because the file
2 system itself has things like the creation date, the
3 date the content was modified and so forth.

4 Q It did include the time-based metadata from
5 the metadata that was stored in the Spotlight Store,
6 correct?

7 A Yes.

8 Q And the reason for doing that was so that that
9 information could be accessed more quickly, correct?

10 A No. The reason for doing that was so that you
11 could query on it, so that you could search for things
12 based on the date information.

13 Q So if you wanted to search for documents that
14 were between -- in that date range, it would be easier
15 to find the documents within that date range, correct?

16 A Yeah. It would be quicker, correct.

17 Q And let me see if I heard you properly.

18 You said the Spotlight Store does not index
19 things that -- and I think you said, quote, are not
20 useful to the user; is that correct?

21 A Could you repeat that? I didn't hear.

22 Q You stated earlier that the Spotlight Store
23 does not index things that are not useful to the user;
24 is that --

25 A We try to avoid that. It's a very, very

1 difficult problem, because what is not useful to me
2 might be useful to you; what is useful to me as a
3 software developer might not at all be useful to you.

4 So we have some -- we have some heuristics for
5 locations that we regard as unlikely to be useful for
6 most users. And if some users are then disappointed
7 because they can't find it, we would rather take that
8 than confuse most users with files that are not useful
9 to them.

10 Q All right. You also mentioned a privacy
11 feature, and you said that users can use that to exclude
12 documents, right?

13 A That is correct.

14 Q Users don't have to use that privacy feature,
15 correct?

16 A It's up to the user whether they want to use
17 that or not.

18 Q And I think I saw, when Mr. Soobert put up the
19 slide, that in order to reset the -- the privacy
20 feature, you had to go through the -- was that the
21 system's preferences menu?

22 A That is the system preferences, yes.

23 Q So the user would have to pull up that
24 system's preferences menu and then make some kind of
25 adjustment within there, correct?

1 A Yes. That is available from the Spotlight
2 search menu, which is our primary user interface. As
3 soon -- whenever you have search results up in the
4 Spotlight search menu, you also see a field that you can
5 click, to go to this panel.

6 Q You also talked a little bit about the future
7 times. One of the items of metadata items is the --
8 something called the due date; isn't that right?

9 A That's quite possible, yeah. We have a -- we
10 have a very large schema, which contains essentially
11 everything we could think of that might be useful to --
12 to have in the DataStore.

13 Q And -- and in Leopard, that due date also was
14 one of the pieces of metadata that would have been put
15 into the Content Store, too, correct?

16 A That would have been indexed.

17 Q You started working on Spotlight after --
18 after the release of Tiger; is that right?

19 A No. I started working on Spotlight probably
20 sometime during 2004 in my role as an engineer on the
21 Mac OS 10 performance team; and I joined the Spotlight
22 team full time, I believe in January of or February
23 2005, which would have been a couple of months before
24 Tiger shipped.

25 If I -- if I have my timeline correct, Tiger

1 shipped April 2005.

2 Q Thank you.

3 MR. STEIN: No further questions.

4 THE COURT: Redirect?

5 MR. SOOBERT: None here, Your Honor.

6 THE COURT: All right. You may step
7 down.

8 Who will be your next witness?

9 MR. RANDALL: Mr. Pavel Cisler, Your
10 Honor.

11 THE COURT: Mister who?

12 MR. RANDALL: Pavel Cisler.

13 COURTROOM DEPUTY: Please raise your
14 right hand to be sworn.

15 (Witness sworn.)

16 PAVEL CISLER, DEFENDANTS' WITNESS, SWORN

17 DIRECT EXAMINATION

18 BY MR. RANDALL:

19 Q Can you please state your name for the record?

20 A My name is Pavel Cisler.

21 Q Okay. And I have to lean into this
22 microphone, so -- unfortunately, everybody does. This
23 stem is a little bit short.

24 Can you describe your educational history
25 after high school?

1 A I have a master's of science in electrical
2 engineering from the Czech Technical University in
3 Prague.

4 Q Do you also have a master's degree?

5 A Sorry. Yeah. I have a master's in electrical
6 engineering, yes.

7 Q And what did you do after you got your
8 master's degree?

9 A I had a brief period of working as an
10 electrical engineer. Then I started a software company
11 in the Czech Republic. We worked on Macintosh software.

12 After that, in '94, I moved to the Silicon
13 Valley, and I worked at three startups: General Magic,
14 B Incorporated, and Easel.

15 And after that, in 2001, I started at Apple
16 Computer.

17 Q Okay. And we all have to -- you'll have to
18 lean into the microphone just a little bit, so we can
19 all hear.

20 A Okay.

21 Q What's your current position at Apple?

22 A At Apple, I managed the Finder and the Time
23 Machine teams.

24 Q And is the Finder, is that really a window
25 that displays the results of searches of Spotlight?

1 A No. Finder is a general file -- file browser
2 that lets you open folders and examine files, and it
3 also lets you do searches, among other things.

4 Q All right. And what other positions have you
5 held at Apple?

6 A When I first started in 2001, I was a software
7 engineer on the Finder team. Eventually -- I believe
8 after two years, I became the tech lead of the Finder.

9 And then later, I started managing the team.

10 And around the beginning of the Leopard
11 project, I assembled a team that started developing Time
12 Machine. And since that time, I have managed both the
13 Finder and the Time Machine teams.

14 Q Is there -- are you familiar with a -- what's
15 called a -- kind of a Coverflow view of information in
16 the Finder?

17 A Yes, I am.

18 Q Okay. Do you understand that Apple obtained a
19 technology license from a company called Steel Skies in
20 May of 2006 for \$70,000 to this Coverflow technology?

21 A Yes, that's my understanding.

22 MR. RANDALL: Let's go to DX636 at

23 Page 1.

24 And if you can just highlight that
25 section there (indicates).

1 Q (By Mr. Randall) Now, this is the assignment
2 agreement between Apple and Andrew Coulter Enright, and
3 Jonathan del Strother, and it's dated May 15, 2006.

4 MR. RANDALL: Down at Section 2.1, if you
5 can scroll down, is the assignment to Coverflow art,
6 which is about the fourth line from the bottom.

7 And then if we can flip, Diane, to the
8 next page, which is 4.1, Section 4.1. And, again, this
9 is Exhibit 636.

10 Q (By Mr. Randall) The consideration is \$70,000.

11 MR. RANDALL: And then if we can go to
12 Page 7 of this document, it's the technology description
13 at Exhibit A.

14 Q (By Mr. Randall) And the first paragraph up
15 there says: Software for album browsing that enables
16 the users to browse and launch digitally stored albums
17 by viewing and flipping through the album art as
18 described in the following websites hereinafter referred
19 to as Coverflow software.

20 And then a few lines down, it says: Copies of
21 these webpages are attached hereto.

22 Is it your understanding, sir, that Apple
23 licensed, for \$70,000, a technology license from Steel
24 Skies for the Coverflow view that is utilized in various
25 products at Apple?

1 A Yes, that's my understanding.

2 Q Thank you.

3 MR. RANDALL: No further questions, Your
4 Honor.

5 THE COURT: All right. Cross-exam.

6 CROSS-EXAMINATION

7 BY MR. STEIN:

8 Q Good morning, Mr. Cisler.

9 The Steel Skies license that Mr. Randall was
10 just mentioning, that wasn't a patent license, was it?

11 A I believe it was a license to acquire the
12 technology.

13 Q But there were no patents involved in that
14 license, was there?

15 A I'm not sure.

16 Q You don't know, right?

17 A No.

18 Q It had just been a copyright license, for
19 example, right?

20 A I'm -- I'm -- I'm -- I don't know.

21 Q And didn't Apple already implement internally
22 its own version of Coverflow before it signed that
23 license with Steel Skies?

24 A I don't believe that's the case.

25 Q Do you know that Apple was working on

1 implementing a version of Coverflow before that license
2 was signed?

3 A I don't believe -- I'm not aware of Apple
4 working on a version of Coverflow before that license.

5 Q Do -- do you know one way or another if Apple
6 was working on that?

7 A As far as I know, Apple wasn't working on it.

8 Q Do you know who implemented the first version
9 of Coverflow at Apple?

10 A I believe the technology was licensed, and
11 then it was -- after it was licensed, it was added to
12 iTunes, to the iTunes application by the iTunes team.

13 Q I asked you if you knew who created the code
14 for Coverflow, the original version of the code at
15 Coverflow for Apple.

16 A Well, I believe it's -- it's the gentleman
17 that we licensed the technology from.

18 Q You don't know that Apple completely rewrote
19 the code on its own and did not use any of the code from
20 the people they licensed Coverflow from?

21 A Well, the -- it depends on which
22 implementation of Coverflow. There's a version of
23 Coverflow that's used in the Finder.

24 And that version, to my knowledge, was
25 reimplemented by the Image Kit team in Paris, and the

1 gentleman that was in charge of that implementation is
2 named -- I know him. His name is Thomas Goossens.

3 Q Do you know a gentleman named Mr. Heller?

4 A Yes, I do.

5 Q Do you know that he was designated by Apple
6 early in this case to speak on behalf of Apple regarding
7 this agreement that we've been talking about in the
8 development of Coverflow?

9 A Yes, I do.

10 Q Well, during his deposition, he said that when
11 I asked him if Apple used any of the source code
12 provided by Mr. Enright and Mr. del Strother, who are
13 the people Apple licensed that technology from -- if
14 Apple used any of the source code provided by them in
15 the implementation of Coverflow and iTunes, he said: In
16 the end, we did not use any of their source code.

17 Do you have any reason to disagree with that?

18 A I don't. I'm sure that's correct. Mr. Heller
19 was closer to that work than I was.

20 Q And he also made it clear that Apple was
21 developing that source code before that license was even
22 signed. Are you aware of that?

23 A I'm not aware of that.

24 Q Do you have any reason to disagree with that?

25 A I -- if that's what Mr. Heller said, then I'm

1 sure that's accurate.

2 MR. STEIN: All right. James, could you
3 bring up Plaintiff's Exhibit 130?

4 And blow up the top, please.

5 Q (By Mr. Stein) This is an e-mail sent by Gene
6 Ragan to Peter, but also copied the Finder team, the
7 finderteam@group.apple.com. It's dated October 10,
8 2002.

9 You were a member of the Finder team in 2002,
10 correct?

11 A That's correct, yes.

12 Q And you would have received this e-mail,
13 correct?

14 A Yes, that's -- that's very likely.

15 Q And this e-mail is basically just a -- sending
16 the Scopeware website around to the Finder team,
17 correct?

18 A That's correct.

19 Q Thank you.

20 MR. STEIN: No further questions.

21 THE COURT: All right. Redirect?

22 REDIRECT EXAMINATION

23 BY MR. RANDALL:

24 Q Do you understand that a technology license to
25 Coverflow from Steel Skies for album-flipping art and

1 the technology as it appears in the website means that
2 Apple can implement that type of displays and that type
3 of technology in any way it specifically chose?

4 A That's my understanding.

5 Q All right. And you didn't -- Apple did not
6 lift quantities of source code and just plug it in;
7 Apple implemented it in different products in different
8 ways by writing this code, right?

9 A That's -- according -- yes, that's correct.

10 Q Thank you.

11 MR. RANDALL: No further questions.

12 THE COURT: Any further recross?

13 MR. STEIN: No.

14 THE COURT: All right. Thank you. You
15 may step down.

16 Who will be Defendants' next witness?

17 MR. RANDALL: Mr. Kevin Tiene, Your
18 Honor.

19 THE COURT: All right. Has this witness
20 been sworn?

21 MR. SOOBERT: No, he has not, Your Honor.

22 THE COURT: If you would raise your right
23 hand and be sworn.

24 (Witness sworn.)

25 KEVIN TIENE, DEFENDANTS' WITNESS, SWORN

1

DIRECT EXAMINATION

2 BY MR. SOOBERT:

3 Q Good morning, Mr. Tiene.

4 A Good morning.

5 Q Can you state your name for the record,
6 please?

7 A My name is Kevin Tiene.

8 Q Okay. Where do you live?

9 A I live in Cupertino in California.

10 Q Okay. And can you just describe your
11 educational history since high school?

12 A Sure. I went to school in Upstate New York
13 for a few years at a college called Oneonta. And then I
14 transferred to George Mason University in Virginia, and
15 that's where I got my Bachelor of Science and Computer
16 Science.

17 Q Okay. So you have a computer science degree?

18 A Correct.

19 Q Okay. And then sometime after college, you
20 joined Apple, right?

21 A Yes. I joined Apple in 1988.

22 Q Okay. And you're currently employed there at
23 Apple still?

24 A Yes.

25 Q Okay. So you've been there since 1988?

1 A Correct.

2 Q Okay. And what was your role in sort of the
3 late '80s and early '90s?

4 A In the late '80s and early '90s, I was in a
5 group at Apple called the Advanced Technology Group,
6 also referred to as ATG.

7 And there, we did a bunch of research into
8 information, access, search, indexing, those kinds of
9 technologies, and also human interfaces to those -- to
10 those search engines.

11 Q Okay. Did you work with Gitta Salomon?

12 A Yes, I did. I worked with Gitta during those
13 years in ATG.

14 Q Okay. And you said you're familiar with
15 indexing and searching technology from back in those
16 days?

17 A Correct.

18 Q Okay. And then have you sort of tracked the
19 development of that over the years, Apple's evolution of
20 indexing and searching technology?

21 A Yes, I have. And in some ways, my career at
22 Apple has sort of followed it as well.

23 MR. SOOBERT: Okay, Diane, can I have
24 KT002? I'm sorry. Next slide.

25 Q (By Mr. Soobert) Okay. Mr. Tiene, this is a

1 timeline of indexing search technology, I believe, at
2 Apple. Can you just briefly walk us through this
3 timeline just generally summarizing what's shown here?

4 A Sure. So the first item there, number one, is
5 when ATG was formed. I joined ATG in late 1988 or early
6 '89.

7 During that time period, I worked on a number
8 of search and retrieval kinds of projects. I was
9 peripherally involved in the Piles project. Some of the
10 people that I -- that I worked with there were key
11 people working on the Piles project, and I worked a bit
12 with Gitta on that project as well.

13 Around 1994 -- up to that time, we had been
14 using kind of off-the-shelf search engines to do our
15 experiments, and in 1994, we decided that it made sense
16 for us to develop our own search engine.

17 And so we had that developed, an engine that
18 we called V-Twin, and it allowed us to -- our hope for
19 that was that we would be able to use it for research,
20 but also that we would write that engine to be product
21 quality such that we hoped that it could be used in
22 Apple products along the way.

23 In Bullet No. 4 there, you can see that that
24 is referring to a product that we actually did release
25 called Sherlock that was part of the operating system,

1 and Sherlock included that V-Twin searching engine as
2 its -- as its indexing and -- and searching engine.

3 Subsequent to that, we took that V-Twin
4 engine; and as Apple moved to Mac OS 10, we repackaged
5 that engine and started calling it SearchKit, and that
6 engine was -- was made available not only to Apple but
7 also to third-party developers.

8 And it was also the engine that was used as
9 the basis of Spotlight when Spotlight was -- Spotlight
10 was released in -- it looks like 2004. The V-Twin
11 engine was the engine that was used to do content
12 indexing and retrieval for the users' files on their
13 hard drive.

14 Q Okay. Thank you.

15 And all of these technologies use some form of
16 indexing and searching technology, right?

17 A Correct.

18 Q Okay.

19 MR. SOOBERT: Diane, can you give me
20 DX1019, please?

21 Q (By Mr. Soobert) Mr. Tiene, do you recognize
22 this document?

23 A Yes. This is a document that is from a Text
24 Retrieval Conference, and I believe this is -- the
25 conference is called TREC. And I believe that this is

1 the -- one of the conferences that we submitted some of
2 the papers having to do with V-Twin engine to the
3 conference.

4 Q Okay.

5 MR. SOOBERT: Can we go to Page 6,
6 please?

7 Q (By Mr. Soobert) This is the front page of
8 that article from the conference. You're familiar with
9 this article, right?

10 A Yes.

11 Q This paper. And this accurately describes the
12 V-Twin preexisting searching and indexing technology; is
13 that right?

14 A Correct.

15 Q And this is from the mid-'90s, this paper.
16 This particular paper was published in 1997, right?

17 A Yes.

18 Q But this technology existed, you know, well
19 before 1996 as well, right?

20 A Correct.

21 Q Okay. All right. Let's shift gears and focus
22 in on 2003. Do you recall a Merlot offsite meeting?

23 A Yes.

24 Q And what was the focus of that meeting?

25 A So Merlot at that time was the name that we

1 Exhibit 392? And just blow up that top part there.

2 Q (By Mr. Soobert) Mr. Tiene, this was an e-mail
3 marked during your deposition earlier in this case that
4 looks like an e-mail that you sent to yourself, and I
5 think you describe it as notes that you had, you know,
6 jotted down and kind of summarized in this e-mail from
7 that Merlot offsite in 2003, right?

8 A Exactly, yes. It appears as though -- as I
9 looked through the documents, there were several
10 timestamps throughout the day of this document as the
11 meeting progressed.

12 And this was an e-mail that I was simply
13 capturing the notes of the -- of the meeting, as much as
14 anything to make sure I was staying awake and paying
15 attention to what was going on.

16 And in some cases, I made little annotations.
17 You can see here that I put three stars next to install
18 performance, because my group was responsible for the
19 installer, and I wanted to make sure to dig into that.

20 Q Okay.

21 MR. SOOBERT: Diane, let's go to Page 2
22 at the top.

23 Q (By Mr. Soobert) And you see there you typed a
24 reference: Scopeware, question mark, Yale, ask Ted.

25 Do you see that?

1 A Yes, I do.

2 Q It doesn't mention anything about
3 Dr. Gelernter there or Mirror Worlds, does it?

4 A No.

5 Q Okay. Do you -- does this jog your memory
6 whether Dr. Gelernter's name even came up at the
7 meeting?

8 A I don't know if his name came up. My
9 understanding of -- of this, you know, looking through
10 the document, this is -- happened at the -- during the
11 tail end of one of the presentations, and people were
12 asking questions.

13 And to the best of my ability, my
14 understanding about what happened here is that a
15 gentleman by the name of Ted Goldstein must have said:
16 Hey, you know, someone -- maybe we should look at this
17 thing called Scopeware. I saw, you know, some article
18 or news about it or whatever. Just came up as a
19 comment.

20 I clearly wrote: Scopeware, question mark,
21 because I didn't know what it was. Yale, because I
22 think he had mentioned that the gentleman was from Yale,
23 and I just wrote a note saying, Ask Ted, meaning, I
24 don't know what this is. Ask Ted, if you want to know
25 what it is.

1 Q Okay. And as far as you know, did you do
2 that? Did you ask Ted or, you know, perhaps submitted
3 these notes to someone who was maintaining the minutes?

4 A So I believe that Ted proactively sent an
5 e-mail to -- to myself. I think he just happened to be
6 sitting close to me and saw that I was taking notes.
7 He sent an e-mail to Tim Shaw, who I believe was
8 collecting the notes, and myself just saying: Hey,
9 here's what I meant by that, and I think he sent -- the
10 text of the e-mail had references to some web URLs. And
11 I think -- I think that's what happened.

12 Q Okay. But as far as you recall, you
13 specifically recall, you don't remember Dr. Gelernter's
14 name being mentioned at the meeting; is that right?

15 A I do not remember his name being mentioned.

16 Q All right. So let me ask you this: You know,
17 based on your understanding and your work at -- at
18 Apple, can you tell me and tell the jury whether your
19 understanding is, did Scopeware or Dr. Gelernter or any
20 of Mirror Worlds' ideas or patented technology or
21 products influence Apple's product development in any
22 way?

23 A Not in any way that I am aware of whatsoever.

24 Q Okay. Thank you.

25 MR. SOOBERT: Pass the witness.

1 THE COURT: Cross-exam.

2 CROSS-EXAMINATION

3 BY MR. DIAMANTE:

4 Q Good morning, sir.

5 A Hi.

6 Q I've been requested to speed up and slow down,
7 and we have not much time, but -- I speak quickly, but
8 I'll try to get through this.

9 Now -- so you weren't -- weren't you
10 appointed, selected -- hand selected by Apple to
11 investigate Apple's employees?

12 A I was appointed to act as a 30(b)(6)
13 representative for a series of e-mails.

14 Q And in common language, you have -- you-all
15 spoke to some people about e-mails, about Scopeware or
16 Dr. Gelernter, correct?

17 A That's correct.

18 Q And let me guess: No one remembered anything,
19 correct?

20 A For the most part, that is absolutely true.
21 No one remembered -- remembered any part of it.

22 Q So you're like -- so this is Apple
23 investigating Apple, correct?

24 A (No response.)

25 Q Is that true?

1 A True.

2 Q And, sir, how many years have you been at
3 Apple?

4 A 22.

5 Q And I saw that pretty little timeline you
6 showed before with V -- is it V-Twin? I think you
7 forgot to mention something.

8 MR. DIAMANTE: Can we turn --

9 Q (By Mr. Diamante) Did you get an e-mail about
10 a demonstration, about Scopeware?

11 A I did, yes.

12 MR. DIAMANTE: Can I see PTX191, James?

13 Q (By Mr. Diamante) This talks about the
14 prospective demonstration, about Scopeware. Do you see
15 that, with Don Lindsay?

16 A Correct.

17 Q And, sir, weren't you at that demonstration?

18 A I'm not sure. So this came -- we discussed
19 this in my deposition. I have a vague recollection of
20 perhaps being in the room. I don't really remember the
21 presentation.

22 I kind of remember that it was odd in that
23 someone was doing the presentation via a website but
24 talking on the phone. It didn't -- it didn't make much
25 of an impression.

1 Q By the way, on this -- on this e-mail, there's

2 a Bertrand Serlet. Do you see that, sir?

3 A Yes.

4 Q And Scott Forstall?

5 A Correct.

6 Q They're top people at Apple, aren't they?

7 A Sure.

8 Q You didn't talk to them about whether --
9 anything about Scopeware or Dr. Gelernter, did you?

10 A I did not. My understanding was, they were
11 being deposed, so I didn't talk about it.

12 Q So when he -- when Counsel asked you a
13 question about whether there was any copying of this
14 man's ideas, you never spoke to the top guys, did you?

15 A I did not speak to them because I didn't feel
16 that I had to in that case. I don't believe that
17 Bertrand or Scott participated in that demonstration
18 whatsoever.

19 Q I didn't ask that question. I asked whether
20 they knew about Scopeware and Dr. Gelernter.

21 You never asked them. You never asked those
22 gentlemen, did you?

23 A I did not.

24 Q And, sir, this gentleman who had the demo, Don
25 Lindsay, wasn't -- didn't he work for you?

1 A Yes, he did.

2 Q And you still don't remember anything about
3 this, do you?

4 A No. I -- as I say, the only thing I remember
5 is that Don set up some sort of demonstration. I don't
6 remember it being noteworthy, and there was no followup
7 whatsoever, in terms of e-mail, other than Don thanking
8 for the -- I think the gentleman's name was Randy Prager
9 that set it up, and thanking him for the presentation.

10 Q And let's -- let's go back. You mentioned the
11 Merlot meeting.

12 MR. DIAMANTE: Can we go back to your
13 notes at PTX391?

14 I'm sorry. That's not -- I'm sorry.
15 Your -- the notes are not -- I don't even need to see
16 them. I think it's PTX -- there's too many PTXs here.

17 Q (By Mr. Diamante) On your -- on your
18 handwritten notes, why aren't those notes -- didn't
19 you -- didn't you previously testify that those notes
20 were major points discussed at that -- at your meeting?

21 A Those notes were capturing what was going on
22 in terms of the presentation. So if you look through
23 those notes, it's about, I would say, five pages' worth
24 of notes on topics being discussed.

25 Q Not to cut you off, sir, but didn't you

1 testify that these were the main bullet points discussed
2 at that meeting? Yes or no.

3 A I was capturing the main bullet points and the
4 questions that came up as a result of that.

5 Q So Scopeware, Yale, ask Ted was a major bullet
6 point, correct, sir?

7 A No, it was not a major bullet point. It was a
8 comment that was made after the presentation was over.

9 MR. DIAMANTE: Can I see his deposition
10 at Page 114, please?

11 You know something? Don't even bother.
12 We'll move on. Let me move on.

13 Q (By Mr. Diamante) Now, this gentleman, who you
14 told us was ask Ted, is Ted Goldstein?

15 A I believe so.

16 Q Well, did he -- was he a bright man?

17 A Yes.

18 Q Knowledgeable?

19 A He's a smart individual.

20 Q Is he -- he worked -- he worked on some of the
21 accused products, didn't he?

22 A Excuse me?

23 Q He worked -- he worked on Spotlight?

24 A No, he did not.

25 Q What products did he work on?

1 A He was in the Developer Tools Group --

2 Q Okay.

3 A -- so he -- he developed the tools that we
4 used to build our system, but he had nothing to do with
5 Spotlight.

6 Q But he relayed -- he's the one that relayed
7 this information, correct, at the meeting?

8 A Yes. It was something that he had seen either
9 in the news or -- I'm not -- I'm not sure where. He was
10 the only one in the room that knew what it meant.

11 Q And these -- in your meeting, though, it found
12 its way to the final notes at Merlot, didn't it?
13 Your -- didn't it, sir?

14 MR. DIAMANTE: Could I see -- can I see
15 PTX110 at Page 3?

16 Q (By Mr. Diamante) These are the final notes,
17 correct, sir?

18 A These are the final notes.

19 Q And did you receive a copy of these notes?

20 A I probably did.

21 Q And it says: Yale professor, David Gelernter,
22 new ways of finding information, correct?

23 A Yes. And that came from an e-mail that Ted
24 sent outside of the meeting to -- to Tim Schaaff, who
25 collected these notes. And instead of having a question

1 mark that said: Scopeware, question mark, ask Ted, he
2 substituted in the information that Ted had sent him in
3 an e-mail.

4 Q I get that.

5 And do you know your -- your -- your company's
6 trying to cancel this man's rights? You know that. You
7 understand that, don't you, sir? Do you have that
8 understanding?

9 A I don't know actually what you mean by that.

10 Q Right. And you see the V-Twin there that you
11 spoke about in that pretty chart, that happened before
12 2003, correct?

13 A Way before.

14 Q And that says: New -- this is 2003.

15 It says: New ways of finding info. How come
16 you're not talking about V-Twin in this memo?

17 A (No response.)

18 MR. DIAMANTE: I have no further
19 questions.

20 MR. SOOBERT: None here, Your Honor.

21 THE COURT: All right. Thank you. You
22 may step down.

23 Who will be your next witness?

24 MR. RANDALL: Your Honor, Apple's next
25 witness is Randy Prager played by videotape. He was the

1 Chief Technology Officer at Mirror Worlds.

2 And the time breakdown on that is Apple,
3 20 minutes and 29 seconds, and Mirror Worlds 3 minutes
4 and 21 seconds.

5 THE COURT: Okay. I tell you what, I
6 think we'll go ahead and take our morning break at this
7 time. I have two criminal matters I need to take up at
8 10:30.

9 So, Ladies and Gentlemen of the Jury,
10 we'll be in recess until 10:45, maybe a little longer
11 than that, but shouldn't be much. So enjoy a nice break
12 this morning, and we'll see you back here at 10:45.

13 We'll be in recess until the lawyers can
14 switch out and get set up.

15 COURT SECURITY OFFICER: All rise.

16 (Jury out.)

17 (Recess.)

18 (Jury out.)

19 COURT SECURITY OFFICER: All rise.

20 THE COURT: Please be seated.

21 All right. Before we bring the jury in,
22 I understand there's some question about the time.

23 MR. RANDALL: Yes, Your Honor.

24 We had for our time yesterday, the total
25 time that we had used, somewhere -- I think we had 6

1 hours and 43 minutes, and that was estimating how much
2 side-bar time was being charged to us.

3 THE COURT: That you had only used 6
4 hours, 43 minutes?

5 MR. RANDALL: What's that?

6 THE COURT: That you had only used 6
7 hours and 43 minutes --

8 MR. RANDALL: Yes, Your Honor.

9 THE COURT: -- at the end of yesterday?

10 MR. RANDALL: Yes, Your Honor.

11 THE COURT: Okay. And is Plaintiff's
12 right?

13 MR. CARROLL: You're keeping the time,
14 Your Honor, and we're not about to say no.

15 THE COURT: All right. And I had you
16 down for having used, I think, 7 hours and 50 minutes,
17 right?

18 MR. RANDALL: Right. So about, roughly,
19 an hour off.

20 THE COURT: Okay. Let me -- I keep some
21 notes here. I will go back and look at it, but I see
22 that you've still got three hours.

23 How much do you need?

24 MR. RANDALL: I do need the time. I
25 really do. And I've planned accordingly.

1 THE COURT: I understand. Let me -- let
2 me look back. We did have those sentencings yesterday.
3 I've been known to let -- forget to turn the clock off,
4 and that may have happened. But I think I can
5 reconstruct it from my notes here and get a good idea.

6 MR. RANDALL: Thank you very much, Your
7 Honor.

8 THE COURT: All right. Thank you.
9 All right. Bring the jury in, please.

10 COURT SECURITY OFFICER: All rise for the
11 jury.

12 (Jury in.)

13 THE COURT: Please be seated.

14 All right. Who will be your next
15 witness?

16 MR. RANDALL: Your Honor, this is going
17 to be a videotaped deposition of Mr. Randy Prager who
18 was Mirror Worlds' Chief Technology Officer, and I gave
19 you the time breakdown previously.

20 (Video clip playing.)

21 QUESTION: Would you state your full
22 name, please?

23 ANSWER: Randy Lee Prager.

24 QUESTION: What role did you assume when
25 you joined Mirror Worlds?

1 ANSWER: My function primarily was the
2 technology, Technology Team, managing the Technology
3 Team, being able to talk about technology during sales,
4 that kind of thing.

5 QUESTION: Do you have any arrangements
6 with your lawyers to be paid for time spent on this
7 case?

8 ANSWER: I did -- I did -- I did do some
9 consulting work for -- for them in '09 for a couple of
10 months.

11 QUESTION: And how much money did you --
12 did you receive?

13 ANSWER: I think roughly -- roughly
14 30,000 over the course of a couple of months.

15 QUESTION: And the Mirror Worlds'
16 Lifestreams product utilized the Verity software for
17 indexing and searching data, correct?

18 ANSWER: I -- I -- I think we used -- to
19 my recollection, I think we used Verity. I'm not sure
20 we used it for indexing per se. I think we may have
21 used it for some of their ability to open documents of
22 various types.

23 I think we used Lucene, which was an open
24 source indexing technology to do the actual indexing.
25 At least that's my recollection.

1 QUESTION: Did you use Lucene for the
2 UNIX operating systems?

3 ANSWER: I believe we did, yes.

4 QUESTION: All right. The second
5 paragraph says: The original business plan was to
6 reduce the concept to practice.

7 And they are referring there to David
8 Gelernter's --

9 ANSWER: I read it, okay.

10 QUESTION: -- right?

11 ANSWER: Yeah. Sure.

12 QUESTION: Do you believe that Mirror
13 Worlds did reduce Mr. Gelernter's concept to practice?

14 ANSWER: I believe we came very close.

15 QUESTION: And ultimately,
16 Mr. Gelernter's concept as reduced to practice in
17 Lifestreams in streams and Scopeware was not successful,
18 correct?

19 ANSWER: I think it's fair to say it was
20 not commercially successful.

21 QUESTION: With respect specifically to
22 the technology, what's your understanding, if any, as to
23 why that Mr. Gelernter's concept, as implemented in
24 Scopeware, was not accepted by the marketplace?

25 ANSWER: I think -- here's my feeling on

1 this: My personal belief is the technology was very
2 compelling, was very good.

3 I think we were, in many respects, kind
4 of ahead of the curve a little, but I think a lot of
5 David's ideas and our products really foretold kind of a
6 social networking phenomena that we've all seen in the
7 past five years. I just think we were a little too
8 early for the concept -- the concepts to really take
9 off. That's my belief.

10 QUESTION: Well, with respect to
11 Scopeware's use of third-party software to index and
12 search --

13 ANSWER: Yeah.

14 QUESTION: -- for documents, that
15 capability --

16 ANSWER: Uh-huh.

17 QUESTION: -- existed in competing
18 products, correct?

19 ANSWER: Yes. I believe -- I believe
20 indexing technology existed in other places. That's
21 absolutely true.

22 QUESTION: And so did search technology,
23 right?

24 ANSWER: Yes.

25 QUESTION: So in the 2000 timeframe and

1 beyond, there were plenty of companies out there that
2 had indexing and search capabilities that they were
3 utilizing, correct?

4 ANSWER: Uh-huh. That's correct.

5 QUESTION: What added benefit, if any,
6 did Scopeware provide specifically to the existing
7 indexing and search capabilities that existed in the
8 marketplace in 2000 and beyond?

9 ANSWER: Again, my personal belief is
10 that one of Scopeware's main goals was to kind of change
11 the paradigm with respect to having these files in
12 folders and categories to store information; that you
13 could store information freed from those predefined
14 categorizations.

15 And when you needed to retrieve a
16 specific piece of information, based on any kind of
17 criteria, it could be made immediately available to you
18 in a way that was intuitive, easy access, easy to
19 understand, so -- and the various things like indexing
20 and thumbnails and icons and all those other things were
21 just tools that we would use to accomplish that ultimate
22 goal.

23 QUESTION: Well, in operation, the
24 Scopeware application utilized the Microsoft operating
25 system, correct?

1 ANSWER: It was one of the operating
2 systems we used, yes; that's correct.

3 QUESTION: And Scope -- just the simple
4 use of the Scopeware application did not ensure that the
5 users would not store and save their documents in the
6 traditional hierarchy system of files and folders in the
7 Microsoft operating system, correct?

8 ANSWER: That is correct. That's
9 correct. The users could save things as they had before
10 and after the use of Scopeware. We do not force them
11 not to do that.

12 QUESTION: And when you mentioned that
13 the Scopeware product allowed for certain searching --

14 ANSWER: Uh-huh.

15 QUESTION: -- and retrieving of
16 documents, you -- Scopeware could only do so if those
17 documents were indexed utilizing the third-party
18 software that was included within Scopeware, correct?

19 ANSWER: That's right.

20 QUESTION: So all of the documents that
21 existed on a computer or that were created on other
22 computers and sent to a computer --

23 ANSWER: Uh-huh.

24 QUESTION: -- if they weren't indexed at
25 some point utilizing the third-party software that

1 Mirror Worlds included in Scopeware, then Scopeware
2 would have no ability to search for those documents,
3 right?

4 ANSWER: That is correct.

5 QUESTION: Let me direct your attention
6 to the top of Page 2 of Mr. Weil's obituary memorandum.

7 And it states: In short, after six years
8 and close to 20 million in funding, the ideas advanced
9 by Mirror Worlds have failed to gain any significant
10 attraction in the marketplace either through
11 partnerships or direct distribution.

12 Do you see that?

13 ANSWER: Yes, sir.

14 QUESTION: There's nothing in there that
15 you disagree with, correct?

16 ANSWER: No.

17 QUESTION: So you specifically recall at
18 one of these meetings involving Apple, being in Mike's
19 office -- Mike Satow's office --

20 ANSWER: Yes.

21 QUESTION: -- using WebEx, providing a
22 PowerPoint presentation, and then doing a demo of the
23 product, right?

24 ANSWER: Yes.

25 QUESTION: How many slides were in the

1 PowerPoint presentation?

2 ANSWER: I don't remember.

3 QUESTION: 10, 20, 30, 50?

4 ANSWER: You know, I would suspect it's

5 like 10.

6 QUESTION: But you're guessing?

7 ANSWER: I'm guessing. I know it was not

8 long, you know.

9 QUESTION: How long was the entire

10 conference call?

11 ANSWER: I don't remember.

12 QUESTION: You never met with anyone at

13 Apple in person, correct?

14 ANSWER: No.

15 QUESTION: To your knowledge, neither you

16 nor anyone else at Mirror Worlds ever met in person with

17 anybody from Apple to discuss anything to do with Mirror

18 Worlds, correct?

19 ANSWER: That's correct.

20 QUESTION: How long did this conference

21 call last?

22 ANSWER: I -- I don't remember.

23 QUESTION: Who else was present in that

24 office with you and Mr. Satow?

25 ANSWER: I don't -- I don't remember if

1 anybody else was there.

2 QUESTION: You don't remember the
3 features of the product that were demoed?

4 ANSWER: Not specifically, but I can
5 talk, if you want, about how we generally would do
6 demos.

7 QUESTION: No. I'm just interested in
8 your specific recollection of this meeting.

9 Who was on the conference call from
10 Apple?

11 ANSWER: I don't remember the -- the
12 names from the other side.

13 QUESTION: How many people spoke on the
14 Apple side during the meeting?

15 ANSWER: I -- I don't -- I don't remember
16 how many.

17 QUESTION: Did you take any notes of the
18 meeting?

19 ANSWER: I don't remember. It's
20 possible.

21 QUESTION: Did Mike take any notes of the
22 meeting?

23 ANSWER: Again, I don't know.

24 QUESTION: What questions, if any, did
25 Apple ask?

1 ANSWER: I couldn't recall specifics.

2 QUESTION: I was just asking about do you
3 have any specific recollection of any questions that
4 they asked?

5 ANSWER: No.

6 QUESTION: Do you have any specific
7 recollection of any questions that you or Mike asked to
8 Apple?

9 ANSWER: No.

10 QUESTION: Do you have any specific
11 recollection of whether the term patent or patents was
12 even mentioned during this meeting?

13 ANSWER: I have a specific recollection
14 that we, in the context of all these kinds of meetings,
15 would reference that we had a patent on what we were
16 doing.

17 QUESTION: Again, I am not interested in
18 what you generally would do. I'm interested in your
19 specific recollection of this meeting, and that's what
20 I'm entitled to here.

21 Do you specifically recall one way or the
22 other whether the words patent or patents were mentioned
23 or to the effect were mentioned during this meeting?

24 ANSWER: I would -- I would say -- I
25 would say --

1 QUESTION: Go ahead.

2 ANSWER: I would say yes.

3 QUESTION: When you say I would say yes,
4 you are assuming that that was mentioned, correct?

5 ANSWER: I'm telling you my specific
6 recollection is that at that meeting, we would -- we did
7 everything we normally do at those kinds of meetings,
8 and part of that was talking about our patent.

9 QUESTION: Sir, I'm not asking you what
10 you normally did and that you assume that you followed
11 normal procedure. I'm not asking that.

12 ANSWER: Yes.

13 QUESTION: I don't want -- I don't want
14 you to tell me who it would have been. Did you -- did
15 you --

16 ANSWER: I -- I do not remember uttering
17 the word patent.

18 QUESTION: Okay. And you don't
19 specifically recall Mr. Satow mentioning patents either,
20 do you?

21 ANSWER: No.

22 QUESTION: Okay. So you don't
23 specifically recall either yourself or Mr. Satow
24 mentioning Mirror Worlds' patents, right?

25 ANSWER: No.

1 QUESTION: You don't have a specific
2 recollection sitting here today of the -- of the words
3 patents or to those -- to that effect, listed in the
4 PowerPoint, correct?

5 ANSWER: The PowerPoints we give at those
6 meetings always said patent. That's my recollection,
7 you know.

8 QUESTION: Again, I'm not -- I'm not
9 interested in what you usually did and whether you --
10 you think you may have followed that procedure in this
11 instance.

12 I asked you earlier if you could recall
13 how many pages were in the PowerPoint, and you couldn't,
14 correct?

15 ANSWER: Correct.

16 QUESTION: And you're not going to tell
17 me that now under oath that you can specifically recall
18 that PowerPoint that was displayed to Apple --

19 ANSWER: Right.

20 QUESTION: -- mentioning patents, right?

21 ANSWER: Right. Correct.

22 QUESTION: Mr. Prager, when was this
23 conference call with Apple?

24 ANSWER: I believe it was like either
25 September -- it was in the fall, maybe September,

1 October, November, something like that.

2 QUESTION: What year?

3 ANSWER: I -- I don't remember exactly.

4 Maybe 2000, 2001, or 2002. I don't remember. I do

5 remember it was the fall.

6 QUESTION: You worked at Mirror Worlds

7 from 2000 to 2002.

8 ANSWER: Right.

9 QUESTION: Can you give me any better
10 timeframe than that?

11 ANSWER: I -- I -- it was 2 -- I don't
12 remember. I'm sorry.

13 QUESTION: All right.

14 ANSWER: I don't remember.

15 QUESTION: That's fine.

16 Do you recall during the meeting Apple
17 mentioning that they had existing indexing and search
18 capability?

19 ANSWER: I don't recall that. I don't
20 recall that.

21 QUESTION: Was there any purpose that you
22 can recall --

23 ANSWER: Uh-huh.

24 QUESTION: -- to this call with Apple,
25 other than to try to attempt to sell them Lifestreams

1 applications?

2 ANSWER: No. We were just trying to sell
3 our technology.

4 QUESTION: All right. That was the sole
5 and exclusive purpose of the call?

6 ANSWER: Yeah, yeah. We wanted to do a
7 deal with as many people as we could and get money out
8 of the company, yeah.

9 QUESTION: You mentioned another meeting
10 with Apple wherein Mirror Worlds attempted to sell
11 Lifestreams to Apple, correct? You said there were two
12 meetings?

13 ANSWER: Yeah. Yeah. I think there
14 is -- again, my recollection is there was a second
15 meeting where it was, I believe, just me on the phone
16 with one or more of folks at Apple. I don't remember
17 specifics other than I believe it was just about more
18 along technology lines.

19 QUESTION: So when you say that there
20 were two meetings, there were actually two conference
21 calls, right?

22 ANSWER: Yes, right. Yeah, sure.

23 QUESTION: Okay. So you've described the
24 first conference call. When -- when in relation to the
25 first conference call did the second conference call

1 take place?

2 ANSWER: I believe it was a couple of
3 weeks after.

4 QUESTION: How long did this second
5 conference call last?

6 ANSWER: I don't remember. I don't
7 remember it being long.

8 QUESTION: Who was on it from Mirror
9 Worlds' side?

10 ANSWER: I believe it was just me.

11 QUESTION: And that was a follow-up to
12 Mirror Worlds' efforts to sell Lifestreams applications
13 to Apple? Yes?

14 ANSWER: It was a follow-up to the
15 original meeting.

16 QUESTION: Where were you physically when
17 you had that call?

18 ANSWER: In my office.

19 QUESTION: Did you make the call, or did
20 you receive the call?

21 ANSWER: I don't remember.

22 QUESTION: Do you recall, during this
23 second conference call, that Mr. Lindsay explained that
24 Apple had existing indexing and search capabilities?

25 ANSWER: I -- I don't -- I don't recall

1 that.

2 QUESTION: Prior to Mirror Worlds'
3 efforts to sell Apple Lifestreams applications, what
4 efforts, if any, did Mirror Worlds undertake to learn
5 what existing indexing and search capabilities Apple's
6 operating system or other applications already had?

7 ANSWER: My -- my focus and a lot of what
8 we would do in prep for these meetings had less to
9 do with -- to be honest, I didn't care whether or not
10 they had index and search.

11 To me, that was not a core component. It
12 was necessary, but for me, the real important stuff was
13 like the visual interface and stream concept.

14 So I often didn't focus that much on
15 whether or not those systems had indexing and search.
16 I -- I remember when Microsoft came out, I think it was
17 in -- in Windows 2000, a later operating system, they
18 did have indexing. It was good news for me. I liked
19 it. We didn't have to bundle in a third-party product
20 at that point.

21 QUESTION: What specifically did you say
22 during this second call with Mr. Lindsay?

23 ANSWER: I -- I can't recall
24 specifically.

25 QUESTION: What specifically did

1 Mr. Lindsay tell you during that call?

2 ANSWER: I can't recall specifically.

3 QUESTION: What generally did you say and
4 what generally did Mr. Lindsay say, if you can recall?

5 ANSWER: Yeah. You mean generally?

6 QUESTION: I don't want you guess or
7 speculate or assume. I want you to do it based on
8 your -- on your independent and specific recollection.

9 ANSWER: Specifically, I don't recall
10 anything.

11 QUESTION: Do you recall generally what
12 you said and what he said?

13 ANSWER: Other than generally, the call
14 was about technology. That would -- that would be it.

15 QUESTION: Okay.

16 ANSWER: I definitely remember that they
17 did not move ahead with us. I'm not sure why or -- you
18 know.

19 MR. RANDALL: I'll mark for
20 identification as Exhibit 14 an e-mail exchange between
21 Mr. Lindsay and Mr. Prager, dated October 24, 2001, and
22 Mr. Prager's response on the same date.

23 QUESTION: I'm showing you an e-mail
24 string between you and Mr. Lindsay, Mr. Prager.

25 ANSWER: Okay.

1 QUESTION: Do you see the e-mail on the
2 bottom of the first page?

3 ANSWER: Yep.

4 QUESTION: It is from Mr. Lindsay to you,
5 dated October 24, 2001. And it's regarding Mirror
6 Worlds' follow-up.

7 Do you see that?

8 ANSWER: Yes, I've got it.

9 QUESTION: Did you receive this e-mail
10 from Mr. Lindsay on or about October 24, 2001?

11 ANSWER: Yes.

12 QUESTION: And he states -- Mr. Lindsay
13 states to you: Hi, Randy. After some discussion, we
14 have decided to not pursue this further. We are going
15 to continue to refine our existing index and file
16 searching technologies.

17 Do you see that?

18 ANSWER: Yep, I've got it.

19 QUESTION: Does that refresh your
20 recollection that, in fact, Apple did inform Mirror
21 Worlds that one of the reasons why it was not going to
22 pursue the discussions with Mirror Worlds any further
23 regarding Lifestreams was because Apple was going to
24 continue to refine their existing indexing and file
25 searching technologies?

1 ANSWER: True.

2 QUESTION: And you wrote back on the same
3 day, shortly thereafter to Mr. Lindsay and said: Sounds
4 good. If there's anything you wish to inquire about the
5 future, please don't hesitate to call.

6 Right?

7 ANSWER: Yes.

8 QUESTION: Other than these two calls
9 that you've already described and this e-mail exchange,
10 do you recall any other communications between Apple and
11 Mirror Worlds?

12 ANSWER: No.

13 QUESTION: And other than what you've
14 testified, is there any other information relating to
15 those calls or any communications between Apple and
16 Mirror Worlds that you haven't already provided
17 testimony on?

18 ANSWER: No.

19 QUESTION: Or described?

20 ANSWER: No.

21 QUESTION: Have we exhausted your memory
22 with respect to these communications, sir?

23 ANSWER: Yes, sir.

24 MR. RANDALL: I'll mark for
25 identification as Exhibit 16 an e-mail string consisting

1 of two pages, ending in Bates-stamp Nos. NV8616 and
2 starting at 8615.

3 QUESTION: Third paragraph, Mr. Gelernter
4 discusses the slide show problem.

5 Do you see that?

6 ANSWER: Yes.

7 QUESTION: And he states: I want the
8 slides laid out in a stream for the usual reasons.
9 Foreshortened display is a natural visual shorthand.
10 Lets me see a lot in a little space. Browse works
11 right. Search lets me find what I want, but in the
12 mainstream, slides are mixed up in random order. I may
13 develop Slide 1 last, Slide 50 first.

14 Do you see that?

15 ANSWER: Yes, got it. Yes.

16 QUESTION: And then he goes on to state
17 two paragraphs down from there: This is the way to
18 store online portions in stream format. A course,
19 series of lectures, assignments, et cetera wants to be a
20 stream but a logical and not chronological one. Huge
21 topic.

22 You see that?

23 ANSWER: Yep.

24 QUESTION: What's the problem with the
25 implementation of the mainstream that Mr. Gelernter's

1 discussing here in his e-mail?

2 ANSWER: It -- it seems to me he's
3 contemplating the problem of showing the stream in a
4 time -- time series.

5 QUESTION: And specifically, what he's
6 referring to is that if you create a set of slides out
7 of order --

8 ANSWER: Uh-huh.

9 QUESTION: -- that they're going to be
10 stored out of order in the mainstream, right?

11 ANSWER: Yeah.

12 QUESTION: And that if you have a slide
13 show or a series of lectures, assignments, expense
14 reports that are created in a different order --

15 ANSWER: Uh-huh.

16 QUESTION: -- then that's going to appear
17 in the mainstream. It will not be a logical
18 representation of the documents, correct?

19 ANSWER: Yeah.

20 QUESTION: And he says that's a huge
21 problem, right?

22 ANSWER: Yeah.

23 QUESTION: It's the last thing he says.

24 ANSWER: Yes.

25 QUESTION: He says: It could be a very

1 powerful and general addition; could solve a lot of
2 problems?

3 ANSWER: Uh-huh.

4 QUESTION: Do you see that?

5 ANSWER: Yeah, I see that.

6 QUESTION: He's trying to solve a lot of
7 problems that are created by storing documents in a
8 chronological rather than logical way, correct?

9 ANSWER: Right.

10 QUESTION: And that is a function of
11 utilizing Gelernter's mainstream concept, correct?

12 ANSWER: Uh-huh.

13 QUESTION: Is that a yes?

14 ANSWER: Yes. Yes. Sorry.

15 QUESTION: Directing your attention to
16 the next e-mail, this is also from Mr. Gelernter, dated
17 March 26, 2001. The subject is designer streams.

18 Do you see that?

19 ANSWER: Yes.

20 QUESTION: He says: Let's say you have a
21 logical instead of chronological collection; for
22 example, an address book, help system, jukebox. You
23 want the separate elements to be members of the stream.
24 No elements of a multi-part document.

25 Do you see that?

1 ANSWER: Yes. Yes, I've got it.

2 QUESTION: Then it goes on to state, two
3 paragraphs down, in the last sentence:

4 ANSWER: Uh-huh.

5 QUESTION: We'd solve the travel form
6 problem and the business plan problem and lots of other
7 problems, too; e.g., the jukebox, slide show, brochure,
8 and book problems.

9 Do you see that?

10 ANSWER: Yes.

11 QUESTION: He's identifying lots of
12 problems that are created by the use of his mainstream
13 concept, correct?

14 ANSWER: Yes.

15 (End of video clip.)

16 THE COURT: All right. I did not get
17 your time on that. What was the total time and how was
18 it split for Mr. Prager?

19 Excuse me?

20 MR. RANDALL: Mr. Prager -- again,
21 Mr. Prager was 23 minutes -- total time, 23 minutes, 50
22 seconds, and split up by Apple, 20 minutes, 29 seconds;
23 and Mirror Worlds, 3 minutes, 21 seconds.

24 THE COURT: All right. Very well.

25 All right. Who will your next witness

1 be?

2 MR. RANDALL: Our next witness, Your
3 Honor, is Mr. Peter Lucas.

4 THE COURT: Okay. Counsel, if you will
5 approach, please.

6 (Bench conference off the record.)

7 THE COURT: I did detect an error on my
8 time for you. I'm going to put 45 minutes back on.

9 MR. RANDALL: Okay. Thank you, Your
10 Honor.

11 (Bench conference concluded.)

12 THE COURT: Has this witness been sworn?

13 MR. SOOBERT: No, he hasn't, Your Honor.

14 THE COURT: All right. Please raise your
15 right hand and repeat after me.

16 (Witness sworn.)

17 THE COURT: All right. Thank you. Be
18 seated.

19 MR. STEIN: Your Honor, we have an
20 objection to some of his testimony.

21 May I approach?

22 THE COURT: All right.

23 (Bench conference.)

24 MR. STEIN: Your Honor, Mr. Lucas will be
25 testifying to things that are outside the four corners

1 of the prior art that Apple is relying upon, and we
2 think that's inappropriate.

3 In addition, he was deposed after Apple's
4 expert submitted his report in this matter, and,
5 therefore, Apple's expert has now relied on the
6 testimony of -- has not relied on the testimony of
7 Mr. Lucas in his report.

8 So our request is that, you know, if
9 he -- if he goes beyond the four corners of the
10 references, that if he's going to be discussing that, it
11 should be excluded, and Apple's counsel should be
12 limited to that.

13 MR. SOOBERT: Your Honor, we disagree
14 with that. His testimony is relevant to a number of
15 issues. He's going to speak to the system that's in
16 public use, not just printed publications and articles.

17 It's relevant to non-infringing
18 alternatives, the scope and content of the prior art,
19 obviousness, and the like. And so he can testify -- it
20 doesn't -- we disagree with the characterization of our
21 expert's report. He certainly addresses the printed
22 publications and articles.

23 THE COURT: The objection's overruled.

24 (End of bench conference.)

25 THE COURT: Counsel approach, please.

1 (Bench conference.)

2 THE COURT: I am making it without
3 prejudice to you raising your objection during any
4 objection in the course of his testimony, but your
5 objection is so general there's no way that I can rule
6 on it. And I think, generally, it's not well-taken, but
7 if you want to raise it on a particular item that you --
8 it's without prejudice to you doing that.

9 MR. STEIN: Thank you.

10 (Bench conference concluded.)

11 PETER ANTHONY LUCAS, Ph.D., DEFENDANTS' WITNESS, SWORN

12 DIRECT EXAMINATION

13 BY MR. SOOBERT:

14 Q Good morning, Dr. Lucas.

15 A Good morning.

16 Q Can you state your full name for the record,
17 please?

18 A Peter Anthony Lucas.

19 Q Okay. And where do you live?

20 A I live this Pittsburgh, Pennsylvania.

21 Q And could you just describe your educational
22 background since high school briefly?

23 A Yeah. I'm an educational psychologist by
24 background. I went to Penn State University as an
25 undergraduate, and I also got a master's degree there,

1 and I got my Ph.D. from Cornell.

2 Q Okay. And where do you work now?

3 A At my design company --

4 Q When --

5 A -- that I co-founded in Pittsburgh.

6 Q I'm sorry. When did you found that company?

7 A Late 1989.

8 Q 1989? And you've worked there continuously
9 since that timeframe?

10 A That's correct.

11 Q Okay. And when you were working at MAYA
12 Design, were you -- what were some of the first early
13 projects you worked on, perhaps the first one?

14 A Well, we founded the company on the basis of a
15 large contract that we were fortunate enough to get from
16 a company called Digital Equipment Corporation, which at
17 the time was a very large computer company.

18 And the project was called Workscape, and it
19 was in the space of office document management systems.

20 Q Okay. And was one of the goals of that
21 project to deal with vast amounts of information on a
22 computer, you know, where users might be able to search
23 for and locate, find documents; if they have a problem,
24 where's my stuff on the computer? Is that one of the
25 focuses and goals of Workscape?

1 A Yeah, very much so.

2 The -- the -- when we did our initial research
3 for Digital -- and this was at a time when people were
4 just starting to -- to figure out how to use computers
5 productively in the office.

6 And we -- we studied a lot of offices, and we
7 discovered that people were having a real -- real
8 problem organizing information, because it was coming in
9 in many different forms. There were faxes; there were
10 spreadsheets; there were e-mails; there were scanned
11 documents.

12 And the goal of Workscape was to design a
13 single user interface that would allow ordinary office
14 workers to -- to find what they were looking for in all
15 of this mess in an efficient way.

16 Q Okay. Now, did you publicly display or
17 present any papers, articles, videos about that system
18 in that timeframe, roughly?

19 A Well, at first, we couldn't, because it was
20 proprietary. But then in late 1993, we were given
21 permission by -- by our client to write several papers
22 and to -- to present them at a large industry conference
23 called CHI, which stands for -- C-H-I. It stands for
24 Computer Human Interaction.

25 Q Okay. And that was in 1994?

1 A Yes. The conference was in '94.

2 Q Okay. And is that a well-attended conference?

3 Is it popular with your colleagues and other
4 folks working in the field?

5 A Very much so. At least at the time, it was
6 clearly the premiere conference. It attracted people
7 from both industry and the academic world.

8 And pretty much anybody who was doing serious
9 work in that area would -- would attend or at least pay
10 attention to the -- to the proceedings of that
11 conference.

12 Q Okay. Now, did you also apply for and
13 describe and you actually obtained a patent on the
14 features that were in the Workscape system?

15 A A number of patents. In fact, I think
16 ultimately eleven were issued about the Workscape work.

17 MR. SOOBERT: Diane, can you bring up
18 DX175, please? Just blow up that top there.

19 Q (By Mr. Soobert) Is this one of your patents,
20 Dr. Lucas, one of the eleven you mentioned?

21 A Yes, it is.

22 Q Okay. And this patent right here is known as
23 the '330 patent, the last three digits of the patent?

24 A Yes. Yes.

25 Q Okay. And it was filed in September of 1993?

1 A That's correct.

2 Q Okay. And issued in 1996, March of 1996,
3 right?

4 A Yep.

5 Q All right. Let's go back to the -- this --
6 you know, the early 1990 timeframe when you were working
7 on this patent application and presenting these papers
8 publicly about the Workscape system.

9 I want to focus on some of the videos that
10 were displayed in that time.

11 MR. SOOBERT: Diane, can you play Clip
12 DX135?

13 (Video playing.)

14 (Video stopped.)

15 Q (By Mr. Soobert) Okay. Now, Dr. Lucas, is
16 that one of the videos that was publicly displayed at
17 the CHI '94 conference in 1994?

18 A It was a section, an excerpt from one of
19 those -- from that video, yes.

20 Q Okay. So there's a -- this is an excerpt of a
21 much longer video that includes additional features
22 about the system as well?

23 A That's correct.

24 Q Okay. And now, we saw on that video the -- a
25 number of demonstrations of features, including these

1 document representations, I believe, that were displayed
2 on the -- on the screen; is that right?

3 A Correct.

4 Q Okay. Now, those document representations,
5 those -- those appeared to me to be receding into the
6 screen and actually foreshortened in the sense that
7 they're getting smaller; is that correct?

8 A Yes. The -- one of -- one of the main ideas
9 of Workspace was to use the third dimension of the
10 screen as a place so that we could locate and visualize
11 larger numbers of documents.

12 Q Okay. And so you had an expertise in MAYA --
13 in the MAYA group and this project of, you know,
14 creating these types of 3-D images in piles like that;
15 is that right?

16 A That's correct.

17 Q Okay. And could I put these document
18 representations, all the documents in the system, if I
19 wanted to, in a single, you know, stack or stream on the
20 screen?

21 A Yes, you can.

22 Q And was it possible to put that stack of all
23 of my documents in the system in a time-ordered stream,
24 presenting them with perhaps the oldest ones in the far
25 back that are fading way into the screen and then the

1 newer ones toward the front and perhaps ones that are
2 yet to be coming from the future in the front?

3 A Yes. That was a very typical thing to do.

4 Q Okay. And is that how that system operated,
5 actually?

6 A Yes.

7 Q Okay. And when was that software -- I know
8 the video was displayed at the conference in 1994, but
9 the software itself that's in there was before that,
10 right?

11 A This particular demonstration that you just
12 saw was written in 1990. In fact, I specifically
13 remember I was working on it over the 4th of July
14 weekend, so it was July 1990.

15 Q All right. And when I said all documents and
16 document representations, I mean, I was talking about
17 things like, you know, faxes and letters and various
18 document -- document types that are handled by the
19 system, like any type of diverse document. It could do
20 that, right?

21 A Correct.

22 Q Okay. All right.

23 MR. SOOBERT: Diane, let's play the CHI
24 video, DX922.

25 (Video playing.)

1 (Video stopped.)

2 Q (By Mr. Soobert) Okay. Dr. Lucas, can you
3 just explain for us again what that find tool is and
4 what it does?

5 A The idea of tools in Workscape was that
6 different capabilities would be packaged in -- in -- in
7 objects on the screen that would perform different
8 functions.

9 The purpose of the find tool was to go out to
10 a data repository where the -- where the documents
11 themselves were stored, search by a criterion or
12 bring -- the criterion could be everything or a subset
13 of the documents, and to bring those documents in and
14 then stack them in some order, typically, but not
15 necessarily by date.

16 Q Okay. And was one of the aspects of this
17 technology to kind of get rid of files and folders or at
18 least put them under the surface so the user didn't have
19 to worry about them and could find these things in a
20 really easy and intuitive way?

21 A Yeah. That was a big part of the initial goal
22 that I described. We wanted to not bother the user with
23 all of these distinctions between file types and how
24 they were stored. Everything was presented to the user
25 just in the form of -- of a document, and it didn't

1 matter where it came from.

2 Q Okay. Now, let's say some of those documents,
3 or all of them, for that matter, are stored in a
4 repository, you know, some other system or a server,
5 something that stores documents, okay?

6 Are you following me?

7 A Yes.

8 Q Okay. Is there a possible -- was it possible
9 in Workscape to do a search of all those documents and
10 actually retrieve those documents and present them to
11 the users so I could see the entire set of documents
12 that were on that repository?

13 A Yes.

14 Q Okay. And how might I do that with the
15 Workscape system?

16 A Well, that's exactly what the -- what the find
17 tool did. You could search by any criterion, including
18 what's called the wild card search, that basically is a
19 search that matched anything.

20 So if you did a wild card search on the
21 documents in a repository, you would basically get them
22 all.

23 Q Okay. And now, let's say I returned or I
24 retrieved all those documents using the wild card
25 search, but I said, oh, gosh, I've got a lot of

1 documents here, and I want to create a subset of them
2 and filter them perhaps, you know, based on any number
3 of criteria, like somebody who authored the document,
4 something in the content.

5 Could I create a sub sort of stream of those
6 document representations?

7 A Yes. There was a tool -- in fact, it was
8 the -- the capability that was prototyped in the first
9 video that you showed where there was a date slider
10 where you -- where the user would be able to slide in
11 two little pointers to specify a period of time.

12 And what that would do is, it would
13 temporarily hide or move the subset of the documents
14 that aren't between those two dates.

15 So it made it very easy -- if the user had a
16 rough idea of when a document was created, it made it
17 very easy for the user to focus his or her
18 attention on -- on just that range of dates.

19 Q Okay. And let's say I've created those --
20 those substreams or strands, I believe they say in your
21 patent, or stacks -- those are all the same terminology,
22 right?

23 A Yes.

24 Q All right. And let's say I've created those,
25 and I don't want to now start remembering where to put

1 things.

2 Could the system automatically update those
3 stacks as new documents are generated or received?

4 A Yeah. There were a couple of ways to do that.
5 The find tool had a feature that would cause it to
6 basically do its search continuously.

7 So if a new document appeared in the
8 repository, it would automatically come in, and it would
9 be inserted in its appropriate place in the strand,
10 pushing back the other documents to make room.

11 It was also possible to write a script.
12 Workscape had a scripting language, much the way a
13 spreadsheet does, that allows the user to customize the
14 behavior. So it would be very easy to make a script
15 that would perform functions like that automatically.

16 Q Okay. And the technical term or one way to
17 say that in a technical term is that those searches and
18 sub-searches were persistent?

19 A That's right.

20 Q Okay. All right. Now, just a couple of other
21 questions.

22 Now, could I copy a document from one
23 repository to another through the Workscape system?

24 A Yes. There was another one of these tools
25 that I've been describing that was called the copy tool.

1 And if you dropped the document --if you would drag a
2 document and drop it on the copy tool, it would make a
3 copy, another instance of that document.

4 And one of the features of the -- of the copy
5 tool was that you could -- the user could specify which
6 repository that copy was to be moved to. So,
7 effectively, you could take a document, drop it on the
8 find tool, and make a backup or archival copy of it in
9 another repository.

10 Q Okay. So if I had a large stack or stream of
11 these documents, and I say: Okay, I want to -- from a
12 date backward, I want to archive those and automatically
13 archive them, I could do this through this process?

14 A Sure.

15 Q Okay. So Workscape, in that timeframe in 1994
16 and earlier in these publications, the patent and the
17 articles, could do automatic archiving, right?

18 A Yes.

19 Q All right. And -- and was the Workscape
20 project well known? I mean, was it -- did you receive
21 any accolades or press or commentary about it?

22 A Well, after we published it at the CHI
23 conference, it was cited in a number of -- of other
24 important papers.

25 And one particular one that comes to mind was

1 a group at Xerox PARC, which was a very famous research
2 lab at the time, cited Workscape and described it as the
3 first example of -- of a three-dimensional interface
4 under -- under direct user control.

5 So we were kind of proud of that.

6 Q And it -- and it had time-ordered sequences
7 and chronological ordering of all those documents in
8 that system?

9 A Yes.

10 Q Okay.

11 MR. SOOBERT: Pass the witness.

12 THE COURT: All right.

13 Cross-examination.

14 CROSS-EXAMINATION

15 BY MR. STEIN:

16 Q Good morning, Dr. Lucas.

17 A Good morning.

18 Q You mentioned earlier that -- in response to
19 Mr. Soobert's questions, that it was possible to do
20 various things in Workscape. Workscape was a general
21 scripting tool, correct?

22 A It was a visualization tool. It contained a
23 scripting component.

24 Q And it was possible to do all sorts of things
25 with that visual -- visualization tool, correct?

1 A Yes. Some were easier than others.

2 Q It was meant to be general so that people
3 could take it and, you know, creatively figure out what
4 they wanted to -- what functionality they wanted and use
5 the system to create that display and functionality,
6 right?

7 A I think a better way to say it is that it was
8 extensible; that is, it did -- had -- had a core vision,
9 this -- this arranging documents in three-dimensional
10 space, according to various criteria.

11 But we -- we were -- we knew that we didn't
12 think of everything that the user would want to do, so
13 we made it -- made it as easy as possible for the users
14 to modify the -- the -- the system for their own
15 purposes.

16 Q So just because the tool was capable of
17 creating something doesn't mean that anybody actually
18 used the tool to create that thing, correct?

19 A I guess that statement's true.

20 Q And that was part of the purpose of the tool,
21 is to enable people to make different things.

22 A If you're asking if there are -- if there are
23 things that the tool could do that no one has ever done,
24 the answer is yes.

25 Q So when Mr. Soobert asked you if the cool

1 could do this and the tool could do -- Workscope could
2 do this and Workscope could do that, it doesn't
3 necessarily mean that someone actually did those things
4 with Workscope, correct?

5 A Not necessarily, but it's fair to say that
6 there were certain uses that were very central to the
7 core vision of Workscope, and so very likely, it would
8 have been used. And many of them we did in our
9 demonstrations.

10 Q You were contacted earlier in the year by
11 Apple, correct?

12 A Yes.

13 Q And they asked for your help in this case,
14 right?

15 A Correct.

16 Q And Apple's paying you to help them in this
17 case?

18 A They're paying my company, my normal
19 consulting rate.

20 Q And what --

21 A It's not going directly to me.

22 Q And what is that rate?

23 A I, frankly, don't know.

24 Q Is it hundreds of dollars an hour?

25 A Hundreds of dollars an hour, yes.

1 Q And you were aware, when they contacted you,
2 weren't you, that Apple was seeking to invalidate
3 Dr. Gelernter's patents, right?

4 A I became aware of it in the course of the
5 conversation.

6 Q Now, isn't it true that in Workscape, that the
7 document you see on the screen is in some ways the
8 actual document?

9 A Well, technically, it's a proxy for the
10 document. The thing on the screen is just a picture.
11 The document itself is in the repository.

12 Q That it's -- it's basically -- if it was a
13 Word document, it would be basically Word -- Word would
14 be opened in that little proxy; and if you brought it
15 up, you would see the document in Word, you know, to
16 give an example; is that right?

17 A Not necessarily. That would be one way you
18 could implement it, but you could also interpret the
19 Word file yourself and render it -- and Workscape could
20 render it on its own. That's really an implementation
21 detail.

22 But -- but our goal -- and I want to make this
23 clear. Our goal was to keep those details as far from
24 the user's mind as possible. We wanted the user to
25 think of that document as if it was -- as if it was the

1 real -- the real document.

2 So if that's what you mean, the answer is yes.

3 Q And a document only appeared once in a

4 Workscape viewer; is -- isn't that right?

5 A Within a single workspace, that's correct, but

6 it was possible to have more than one workspace open at

7 the same time. So -- so it's yes and no.

8 Q So within that one Workscape, it would --

9 Workscape wouldn't have the document and then another

10 visual representation of that same document, would it?

11 A Not in the same window, but in separate

12 windows, it could.

13 Q And one of the possibilities that Mr. Soobert

14 mentioned for Workscape was doing some type of

15 archiving. That wasn't described in any of your

16 publications, was it?

17 A Well, certainly, I -- the -- the feature that

18 permitted you to connect simultaneously to multiple

19 repositories was -- was very key, and we talked about

20 that -- that very, very frequently, whether -- and --

21 and to me, I'm not sure what you mean by the term

22 archiving; but if it means moving an instance of a

23 document from one repository to another, then, yeah, I

24 think it was.

25 Q When customers -- typically, users have an

1 archiving tool where they're just backing up files on a,
2 you know, personal computer. That's not the type of
3 thing you were just talking about there, is it?

4 A I'm not sure I see what the difference is.
5 And sometimes I think this is a kind of a philosophical
6 question, because -- and I don't mean to be repetitive,
7 but we really wanted to let our users -- to stop
8 thinking about all this nonsense about the machinery of
9 how the computer works and to just let them deal with
10 their documents.

11 But this function was the same. It was -- if
12 you want -- the reason you would want to move something
13 from one repository to another would be presumably
14 because you think it's safer that way, and you wanted to
15 make a backup.

16 So I'm not sure what distinction you're --

17 Q There -- there was nothing described in those
18 papers as an archiving tool in that sentence, right?

19 A I -- we probably did not use that word.

20 MR. STEIN: James, could you put up
21 PTX437?

22 Q (By Mr. Stein) That's a copy of the patent
23 that Mr. Soobert showed you earlier, right?

24 A Yes, it is.

25 Q And -- and that's a patent relating to your

1 work on Workscape; is that right?

2 A Correct.

3 MR. STEIN: And could you go to Figure 5
4 of that patent? It's probably down a few pages.

5 Q (By Mr. Stein) Now, up in the top, there's
6 something called a corkscrew pile. Do you see that?

7 A Yes.

8 Q Okay.

9 MR. STEIN: James, could you show
10 PTX1812? And could you go to -- before you go there --

11 Q (By Mr. Stein) Up in the corner, that's --
12 that's another one of your patents, right, even though
13 your name is misspelled, correct?

14 A Yes, it is.

15 Q And it's another patent on your Workscape
16 work?

17 A Yes.

18 MR. STEIN: James, can you go to Figure 5
19 of this patent?

20 Q (By Mr. Stein) And it has that same Figure 5.
21 See that?

22 A Yes.

23 Q In fact, all the figures -- I don't know if
24 you remember these patents, but all the figures in this
25 patent are the same as the figures in the '330 patent.

1 They basically have the same written
2 description. Do you recall that? Do you recall filing
3 patents with the same written description?

4 A I -- this was many years ago. I don't
5 remember the details. Certainly, a lot of the
6 background text is the same, because it's describing the
7 same underlying system. But the patents, as I
8 understand it, describe different aspects -- protect
9 different aspects of -- of -- of the system.

10 Q It could be possible that the patents have the
11 same description, but the claims at the end were
12 different, right?

13 A The extent I understand patent law, yes.

14 Q Okay.

15 MR. STEIN: James, could you put up
16 PTX11?

17 Well, actually, if you would go back to
18 that one for one second.

19 Q (By Mr. Stein) So with this patent, you know,
20 the patent number is in the upper right. It ends in
21 '134. Do you see that?

22 A Yes.

23 MR. STEIN: Okay, James. Could you go to
24 PTX11? And could you blow up like the top half?

25 Q (By Mr. Stein) And do you see that the patent

1 sort of in the middle -- oh, by the way, this is the
2 '427 patent. It's one of Dr. Gelernter's patents that
3 are at issue in this case.

4 Do you see in the middle of the column on the
5 right, the patent that's highlighted there?

6 A Yes.

7 Q And that, actually, is a patent number of the
8 one we were just looking at. And you see it's cited on
9 the face of Dr. Gelernter's patent, right?

10 A I can't keep these numbers in my head, but I
11 assume so.

12 Q And that means the Patent Office considered
13 that patent in granting Dr. Gelernter's patent, right?

14 A I really have no expertise in how the Patent
15 Office works.

16 Q Okay.

17 MR. STEIN: No further questions.

18 THE COURT: All right. Redirect?

19 MR. SOOBERT: Just one brief question,
20 Your Honor.

21 REDIRECT EXAMINATION

22 BY MR. SOOBERT:

23 Q Mr. Stein just showed you a patent at issue in
24 the case citing one of your patents. You had a number
25 of other articles and publications that were presented

1 well before that patent and all the patents at issue

2 here were filed, right?

3 A Yes.

4 Q Okay. And none of those were cited or

5 considered by the Patent Office by anything you saw from

6 Mr. Stein; is that right?

7 A As far as I know.

8 MR. SOOBERT: Nothing further.

9 THE COURT: All right. Thank you.

10 All right. You may step down.

11 All right, Ladies and Gentlemen of the
12 Jury, we're going to take our noon recess at this time.

13 We're going to be in recess until 12:30. I think the
14 parties have arranged some good sandwiches for you in
15 there.

16 So enjoy your lunch break. Please
17 remember my instructions, and we'll reconvene at 12:30.

18 We'll be in recess.

19 COURT SECURITY OFFICER: All rise for the
20 jury.

21 (Jury out.)

22 (Lunch recess.)

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CERTIFICATION

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I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of our abilities.

/s/ _____ Date
SHEA SLOAN, CSR
Official Court Reporter
State of Texas No.: 3081
Expiration Date: 12/31/10

/s/ _____ Date
JUDITH WERLINGER, CSR
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