then I left; so it kind of stuck with the name "Draft" on it, which everyone always asks us about that. 04:31:59 04:32:04 04:32:08

Q. Oh. So this really wasn't a draft? 04:32:08

A. No, it was not a draft. 04:32:10

Q. So it was published in this form that -- 04:32:11

A. It was published in this form, yes. 04:32:13

Q. And does this document accurately describe TerraVision as of the date of this publication, April 22, 1994? 04:32:16 04:32:21 04:32:25

MR. HAMELINE: Objection. 04:32:26

THE WITNESS: Yes. 04:32:26

BY MR. WOO: Q. Take a look, if you will, at the second page of this document. 04:32:29 04:32:36

A. Mm-hmm. 04:32:39

Q. It's the first full page of the actual article itself. The footnote refers to funding in part by "ARPA Contract F19628," and it goes on from there. I won't read all the numbers. 04:32:39 04:32:42 04:32:46 04:32:53

ARPA the same thing as DARPA? 04:32:56

A. Yes. They went through a phase during the early '90s where they originally were called DARPA, and then for a while they were called ARPA, and then they reverted back to DARPA, but they are all exactly the same agency. 04:32:58 04:33:00 04:33:00 04:33:03 04:33:07

Q. And of these two representations, which would be the higher, and which would be the lower resolution, if any? 04:39:02 04:39:04 04:39:08

A. The higher resolution would be the smaller, the one on the left. 04:39:08 04:39:11

Q. And the one on the right would be the lower resolution? 04:39:13 04:39:15

A. Yes. 04:39:16

Q. And the -- if I could -- see if I could understand you, the tile on lower resolution labeled (0,1,1) on the right is then represented by the high-resolution tiles, the four of them on the left -- 04:39:17 04:39:21 04:39:26 04:39:28 04:39:31

A. Yep. 04:39:31

Q. -- (0,3,0), (1,3,0), (0,2,0) and (1,2,0)? 04:39:32

A. Yes. 04:39:37

MR. WOO: If I can -- let's have marked as Exhibit 88, a copy of a multipage document bearing Control Nos. GOOG 25544 through 25595, with the title of "IEEE Network, The Magazine of Global Information Exchange." 04:40:34 04:40:57 04:41:00 04:41:08 04:41:12

(Whereupon, Exhibit 88 was marked for identification.) 04:41:21

BY MR. WOO: Q. Do you recognize Exhibit 88? 04:41:21 04:42:13

A. Yes. 04:42:13

Q. What is it? 04:42:13

A. It's IEEE Magazine that had MAGIC -- an article about MAGIC. 04:42:14 04:42:18

Q. And do you recognize this particular copy as one having come from your files? 04:42:19 04:42:23

A. Yes. 04:42:26

Q. Was this magazine something that was available to the general public? 04:42:26 04:42:33

A. Yes. It still is, I think. 04:42:34

Q. Did you subscribe to this back in the day when you were at SRI? 04:42:42 04:42:47

A. You know, I don't remember. 04:42:48

Q. The -- so I think the article begins on page 15 of this document, GOOG 25560, and it shows authors Barbara Fuller and Ira Richer. 04:42:49 04:43:04 04:43:12

A. Richer. Ira Richer. 04:43:16

Q. And who are they? 04:43:19

A. Ira Richer worked for -- worked with -- originally with MITRE, and then he worked for a called CNRI, Corporation National Research Institute. He was pretty much hired to be the overall MAGIC project lead or coordinator to try to get all the different disparate groups to work together and to make sense of it all. 04:43:19 04:43:22 04:43:25 04:43:28 04:43:30 04:43:36 04:43:42

Q. What was MITRE? 04:43:45

A. I don't -- MITRE is -- I don't exactly 04:43:46

remember what the acronym is, but it was a research 04:43:48

institute very similar to SRI that did a lot of 04:43:52

DARPA contracts. 04:43:54

Q. And who is Barbara Fuller? 04:43:55

A. Barbara Fuller was with MITRE and assisted 04:43:59

Ira Richer. 04:44:02

Q. Did either of them contact you in 04:44:03

connection with this article? 04:44:08

A. Yes. 04:44:09

Q. And what, if anything, did you provide to 04:44:10

them? 04:44:12

A. We provided -- Yvan and I provided a 04:44:13

write-up for them that was then edited like crazy to 04:44:16

form this. I generated the Figure No. 3 and Figure 04:44:19

No. 4 for this, and let's see. 04:44:25

Q. What does Figure 3 represent? 04:44:39

A. Figure 2, 3 represents kind of like the 04:44:42

quadtree structure that we had for the different 04:44:46

resolution hierarchies and how they would map into 04:44:47

like a 3D perspective view with low -- 04:44:50

high-resolution tiles being up close, and the 04:44:54

lower-resolution tiles being further and further 04:44:56

away. 04:44:58

Q. Is this also a reference to the pyramid we talked about earlier? 04:44:59 04:45:04

A. Yeah. 04:45:05

Q. What is Figure 4? 04:45:06

A. Figure 4 was actually to show how we actually map the actual terrain image, the satellite or photo image onto the underlying elevation model and to form a synthetic image that was 3D that looked like you were flying over the terrain. 04:45:07 04:45:09 04:45:13 04:45:18 04:45:23

Q. So on page 15/16 on the bottom of the right-hand column to the top of the left or the middle of the left-hand column on the next page, there's a list of the principal MAGIC research participants. 04:45:27 04:45:38 04:45:41 04:45:43 04:45:49

Is that an accurate list? 04:45:49

A. Yes. To the best of my knowledge, yeah. 04:45:51

Q. So one of the participants in the MAGIC project was the University of Kansas, for example? 04:45:56 04:45:59

A. Yes. 04:46:01

Q. Did you review this article after it was published? 04:46:06 04:46:13

A. Yeah, I reviewed it after and before it was published. I mean, it went through many, many iterations. 04:46:13 04:46:17 04:46:19

Q. Did you find any inaccuracies in the 04:46:20

article about TerraVision? 04:46:23

A. No. 04:46:24

Q. Does the article, then, accurately describe MAGIC as of the date of the article? 04:46:28 04:46:35

MR. HAMELINE: Objection. 04:46:38

THE WITNESS: Yes. 04:46:39

Sorry. 04:46:40

Yes. 04:46:41

BY MR. WOO: Q. Does the article accurately describe TerraVision as of the date of the article? 04:46:41 04:46:43 04:46:47

MR. HAMELINE: Objection. 04:46:48

THE WITNESS: Yes. 04:46:48

BY MR. WOO: Q. Is the IEEE Network magazine a well-accepted magazine within the people in the art? 04:46:48 04:47:02 04:47:06

MR. HAMELINE: Objection. 04:47:07

THE WITNESS: Yes. It is considered a valuable resource, a respected resource. 04:47:07 04:47:12

BY MR. WOO: Q. People, then, in the industry consider the information in it trustworthy? 04:47:16 04:47:22

MR. HAMELINE: Objection. 04:47:25

THE WITNESS: Yes. 04:47:25

BY MR. WOO: Q. On page 25 of this magazine, GOOG 25570, in the middle of the 04:47:54 04:47:56

right-hand column there's a list of references. 04:48:01

A. Yes. 04:48:03

Q. And Reference No. 7 is something -- there's a reference to the Technical Note 540. 04:48:05 04:48:10

Is that the same technical note that was marked previously as Exhibit 87? 04:48:12 04:48:16

A. Yes. 04:48:17

Q. Is it 87? 04:48:19

MR. HAMELINE: Eighty-seven. 04:48:21

THE WITNESS: Eighty-seven, yes. 04:48:22

MR. WOO: Let me have marked next, one-page document bearing Control No. GOOG 26467. Exhibit 89, I believe. 04:48:23 04:49:20 04:49:25

(Whereupon, Exhibit 89 was marked for identification.) 04:49:39 04:49:40

BY MR. WOO: Q. Mr. Lau, do you recognize Exhibit 89? 04:49:40 04:49:47

A. Yes. 04:49:47

Q. It's actually a reproduction of a poster that you provided to our office? 04:49:47 04:49:54

A. Yes. 04:49:56

Q. And what does this document represent? 04:49:56

A. It was actually a promotional or display that was actually at SC '95 to showcase the I-Way. 04:50:01 04:50:06

Q. What was the I-Way again? 04:50:14

A. The I-Way was a network that was created for SC '95 to try to tie together various collaborative and research networks and test beds to provide high-performance networking to the conference. 04:50:15 04:50:18 04:50:25 04:50:30 04:50:32

Q. Were any other remote servers used for SC '95 demo shown here at all? 04:50:33 04:50:39

A. Yes, on the MAGIC network and also on ESnet. 04:50:41 04:50:41

Q. I'm sorry. What? 04:50:41

A. And also Sprint ATM/Sonet. 04:50:42

Q. Can you point out where they were? 04:50:44

A. Yeah. In Kansas City, Kansas, which is in the center of the country; in Minneapolis, St. Paul, which is where the little line coming down from MAGIC was; and from ESnet, which also goes to various people down in Lawrence Berkeley National Labs, which isn't shown here. 04:50:46 04:50:49 04:50:53 04:50:56 04:51:00 04:51:02

Q. And it's all connected to the sort of city shown in the left-hand side of the diagram? 04:51:04 04:51:06

A. Yeah. 04:51:08

Q. That's San Diego?

A. Well, it's supposed to represent San Diego. 04:51:09

Q. Close enough. 04:51:12

A. Yeah. 04:51:13

Q. And the network, that included use of the Internet -- 04:51:14 04:51:18

MR. HAMELINE: Objection. 04:51:18

MR. WOO: Did the network used include -- strike that. 04:51:20 04:51:24

Did or did not the network used include the Internet? 04:51:24 04:51:30

MR. HAMELINE: Objection. 04:51:30

THE WITNESS: Uses the commercial ATM, which was yes. 04:51:31 04:51:36

MR. WOO: Let me have marked as Exhibit 90 a multipage document bearing GOOG 26494 through 26506, a Quarterly Report dated 26 January 1993. 04:52:07 04:52:09 04:52:17

(Whereupon, Exhibit 90 was marked for identification.) 04:53:07

BY MR. WOO: Q. Mr. Lau, do you recognize Exhibit 90? 04:53:07 04:53:09

A. Yes. 04:53:09

Q. What is it? 04:53:09

A. It was a MAGIC -- quarterly -- one of the first, I think, Quarterly Reports that we created for the MAGIC project. 04:53:10 04:53:12 04:53:15

Q. And this was prepared by yourself and others? 04:53:16 04:53:18

A. Yeah. By Yvan, myself, and also 04:53:18

State of California) ss.
COUNTY OF ALAMEDA)

I, SUSAN F. MAGEE, RPR, CLR, a Certified Shorthand Reporter in and for the State of California and disinterested person, do hereby certify:

That prior to being examined, the deponent named in the foregoing deposition was by me duly sworn to testify the truth, the whole truth, and nothing but the truth;

That the said deposition was taken before me at the time and place therein stated and was thereafter transcribed into typewriting under my direction; that the foregoing deposition is a true record of the witness's testimony as reported by me; that the deponent was given an opportunity to read, correct and sign the deposition transcript.

I further certify that I am not related to any party or counsel or attorney for any of the parties in the foregoing deposition or in any way interested in the outcome of the action herein.

Susan F. Magee, RPR, CLR
CSR No. 11661

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

--o0o--

CERTIFIED COPY

SKYLINE SOFTWARE SYSTEMS, INC.,

Plaintiff,

vs. No. 04-11129 DPW

KEYHOLE, INC., and GOOGLE, INC.,

Defendants.

_____ /

CONFIDENTIAL

VIDEOTAPED DEPOSITION OF STEPHEN LAU, JR.

HIGHLY CONFIDENTIAL - OUTSIDE COUNSELS' EYES ONLY

Volume II (Pages 151-334)

Thursday, June 22, 2006

REPORTED BY:

SUSAN F. MAGEE, RPR, CLR, CSR No. 11661

STEPHEN LAU, JR.,

having been previously duly sworn, testified as follows:

EXAMINATION BY MR. WOO

Q. Mr. Lau, you understand you're still under oath? 02:07:06 02:07:08

A. Yes, I do. 02:07:09

THE VIDEOGRAPHER: Thank you. 02:07:10

BY MR. WOO: Q. Now, before we started this afternoon, I had the court reporter mark as Exhibit 201 a multipage document bearing Control Nos. GOOG 26931 through 27373. I have that in front of you. 02:07:10 02:07:16 02:07:19 02:07:25 02:07:34

I also have in front of you the original bound volume of the same document, the 1994 MAGIC Technical Symposium document from which Exhibit 201 was duplicated. 02:07:35 02:07:39 02:07:46 02:07:50

So first of all, do you recognize Exhibit 201 as a duplicate of the bound volume? 02:07:52 02:07:55

A. I would assume so. I would have to go through it all and verify but yeah. 02:07:58 02:08:01

Q. It appears to be -- 02:08:03

A. It appears to be the same. 02:08:05

Q. Okay. And Exhibit 201, the original of Exhibit 201, was that something that you had kept as part of your files? 02:08:06 02:08:11 02:08:14

A. Yes. 02:08:14

Q. And could you identify Exhibit 201 for us please? 02:08:16 02:08:22

A. It's the proceedings from the 1994 MAGIC Technical Symposium that was held in Lawrence, Kansas. 02:08:22 02:08:26 02:08:28

Q. Were all MAGIC Technical Symposia open to the public? 02:08:28 02:08:32

A. Yes. It was not a closed. 02:08:33

Q. And was Exhibit 201, the original of Exhibit 201, was that something that was kept as part of your duties at SRI? 02:08:34 02:08:37 02:08:39

A. Yes. 02:08:40

Q. And the copy of that -- the bound volume was something that you provided to our office out of your files? 02:08:41 02:08:47 02:08:49

A. Yes. 02:08:50

Q. And the Exhibit 201, that was prepared on or about August of 1994? 02:08:51 02:08:57

A. Yes. 02:08:59

Q. And was this prepared in the course of SRI's regularly conducted activities? 02:09:03 02:09:09

MR. HAMELINE: Objection. 02:09:12

THE WITNESS: It was not creed by SRI. It was actually -- I'm not exactly sure what company created it or whatever, what group created it, but the MAGIC group created it. 02:09:13 02:09:16 02:09:18 02:09:21

BY MR. WOO: Q. I see. 02:09:22

A. I mean, we put it together. 02:09:23

Q. "We" meaning SRI and -- 02:09:25

A. SRI and the rest of the MAGIC folks put it together. 02:09:26 02:09:29

Q. Did SRI contribute to the documentation -- 02:09:30

A. Yes. 02:09:33

Q. -- in this? 02:09:33

A. Yes. 02:09:34

Q. Turn, if you would, to -- oh, the Exhibit 201 has been numbered with control numbers. And if you could turn to GOOG 26979. 02:09:34 02:09:43 02:09:45

A. Okay. What was the number again? 02:09:51

Q. 26979. It's not too far. Maybe 10 percent of the way through. 02:09:56 02:10:00

A. Yep. 02:10:01

Q. It's entitled, "Script for TerraVision videos." 02:10:02 02:10:07

A. Yes. 02:10:07

Q. Can you -- let's see. That runs from 26979 02:10:08

through 26984; is that right? 02:10:17

A. That is correct. 02:10:20

Q. Actually, there are two scripts contained within this; is that right? 02:10:27 02:10:31

A. Yes. 02:10:32

Q. Okay. And can you tell me what this script was for? 02:10:33 02:10:35

A. The script was for two videos that was created describing TerraVision. One was a high-level script for TerraVision, and one was more dialed in terms of the architecture, how it worked. 02:10:36 02:10:39 02:10:44 02:10:47

Q. Did you participate in preparing the script? 02:10:50 02:10:52

A. Yeah, yes. 02:10:53

Q. Did you prepare both of them? 02:10:53

A. I participated in preparing both of them. 02:10:55

Q. And were those scripts prepared in or about August of 1994? 02:11:00 02:11:04

A. They actually were prepared before that but yes. 02:11:05 02:11:08

Q. And did those scripts accurately describe the TerraVision system as of that date? 02:11:08 02:11:17

A. Yes. 02:11:22

MR. HAMELINE: Objection. 02:11:23

THE WITNESS: Sorry. 02:11:23

Yes. 02:11:24

BY MR. WOO: Q. Now, I have also in front 02:11:25
of you something we talked about yesterday, 02:11:34
Exhibit 98. And if you could turn to page 3 of that 02:11:38
exhibit, GOOG 26471. 02:11:42

A. Okay, yes. 02:11:48

Q. At the bottom of the page of Exhibit 98, 02:11:50
there's a reference to TerraVision videos. 02:11:53

A. Mm-hmm. 02:11:58

Q. Is Exhibit 201 the scripts that -- the 02:12:06
strict portion that we've been talking about the
scripts for the videos that were referred to in 02:12:08
Exhibit 98? 02:12:11

A. Yes, they were. 02:12:14

Q. So looking at the scripts, the second one 02:12:15
that begins on GOOG 26982, the top of the page it 02:12:40
says "TerraVision II title slide." 02:12:51

A. Mm-hmm. 02:12:55

Q. That's TerraVision II meaning the second of 02:12:55
the two video segments? 02:12:58

A. Yes, yes. 02:13:00

Q. This does not refer to some other project 02:13:00
called TerraVision II that occurred much later in 02:13:03
time, does it? 02:13:06

A. No, it does not. 02:13:06

MR. WOO: Let's have marked by the court reporter a videotape bearing Control No. G-T 0018. 02:13:12 02:13:15

(Whereupon, Exhibit 202 was marked for identification.) 02:13:24 02:13:48

MR. WOO: So at this time I'm going to have this videotape marked as Exhibit 202 placed in the videotape player that we have here in the room. I'm going to play that tape for you. 02:13:48 02:13:50 02:13:54 02:13:57

THE REPORTER: Would you like to go off the record? 02:14:12 02:14:14

MR. WOO: No. Let's stay on the record. We'd like to have it transcribed. 02:14:14 02:14:15

THE REPORTER: The videotape transcribed? 02:14:17

MR. WOO: Right, the voice portion. It's a very short tape. 02:14:17 02:14:20

Let's start at the beginning.

MR. SACKSTEDER: I forgot you have to rewind videotapes.

(Whereupon, the following portion of Exhibit 202 was played:

"TerraVision is a real time terrain visualization system developed at SRI International." 02:14:44 02:14:49

It is the test application of the ARPA-sponsored MAGIC project, one of several 02:14:51 02:14:52

large-scale gigabit testbed projects. The underlying technology in TerraVision was derived in part from research carried out under the ARPA-Image Understanding program." 02:14:55 02:14:57 02:15:00 02:15:02

"MAGIC, or the Multidimensional Applications Gigabit Internet Consortium, comprises a number of ARPA-sponsored and contributing participants. The goal of the MAGIC project is to develop a gigabit-per-second ATM-based network and to address issues in high-speed networking, data storage, transport and visualization." 02:15:04 02:15:06 02:15:09 02:15:10 02:15:13 02:15:17 02:15:19

"The network currently connects Minneapolis; Sioux Falls, South Dakota, and Kansas City, Lawrence, and Fort Leavenworth in Kansas." 02:15:21 02:15:23 02:15:25 02:15:27

"TerraVision uses high-speed networks and distributed online storage systems to visualize multi-gigabyte-sized terrain databases, such as the one we are viewing, in a novel way. Instead of copying the entire database to local storage before visualizing it, data is fetched across the network as it is needed while the user moves about the terrain. TerraVision is designed to accommodate the losses or delays that are inherent in the transmission of remotely stored data over a network. 02:15:28 02:15:31 02:15:33 02:15:35 02:15:39 02:15:40 02:15:43 02:15:47 02:15:49 02:15:49

The terrain data comprises an elevation model and a mosaic of preprocessed aerial images. It could be viewed in three dimensions, where the aerial images are draped over the terrain, as we have seen here." 02:15:53 02:15:57 02:15:59 02:16:01

"Or it can be viewed in two dimension by panning and zooming over the terrain, rapidly moving from high-altitude panoramic views to low-altitude detailed views using push-button controls." 02:16:04 02:16:06 02:16:09 02:16:15

"Another way to move about the terrain is to use a registered map on which the view area is outlined." 02:16:15 02:16:17 02:16:20

"The user can click anywhere on the map, instantly changing the points of view." 02:16:20 02:16:22

"The terrain data we are viewing are georeferenced. That is, the aerial images and elevation data have been precisely aligned with each other, and with a standard world coordinate system. What this means, for example, is that models of buildings can be accurately superimposed on the terrain." 02:16:25 02:16:28 02:16:31 02:16:35 02:16:36 02:16:38 02:16:41

"In addition, TerraVision can display a number of moving vehicles whose real-world positions have been obtained from sources such as portable GPS receivers. These vehicle positions can be directly transmitted to TerraVision for real-time viewing, or 02:16:43 02:16:45 02:16:49 02:16:51 02:16:54

they can be recorded for future playback, which is what we see here. Other types of mobile objects could also be viewed in real time using TerraVision." 02:16:55 02:16:59 02:17:02 02:17:05

"In summary, TerraVision is a system for visualizing massive amounts of real georeferenced terrain data using high-speed networks and distributed online storage systems." 02:17:05 02:17:08 02:17:11

"Some of the advantages of this approach to visualization are: Visualization is not limited by the amount of workstation memory; Visualization is not limited by the size or access speed of local storage systems; newly obtained data can be visualized simultaneously by multiple users at different locations, while communicating about common aspects of the data; a single geographically distributed database can be created and maintained by many experts, each responsible for one aspect obtained of the composite information. Consistency of the data is therefore guaranteed.)" 02:17:15 02:17:18 02:17:21 02:17:23 02:17:26 02:17:30 02:17:33 02:17:35 02:17:39 02:17:41 02:17:43 02:17:45

THE WITNESS: They want to make sure the sponsors are recognized. 02:18:16 02:18:18

BY MR. WOO: Q. Right. That's really a long pause. I apologize for that. Let me pause the tape at this point, and let me ask this question: 02:18:20 02:18:21 02:18:26

Do you, Mr. Lau, recognize this as a duplicate of the videotape that you provided to our office? 02:18:28 02:18:32

A. Yes. 02:18:34

Q. What was that videotape? 02:18:35

A. I'm not sure exactly what you mean by that. 02:18:37

Q. Well, was that videotape something that you prepared while at SRI? 02:18:41 02:18:42

A. Yes. 02:18:44

Q. Was that the -- that a copy of the videotape that is referred to at the bottom of page 3 of Exhibit 98? 02:18:44 02:18:48 02:18:51

A. Yes. In fact, I think it might have been the original one. 02:18:52 02:18:54

Q. Okay. And was that second that we just saw the first segment or the second segment as referred to at the bottom of Exhibit 98, the third page? 02:18:55 02:19:00 02:19:03

A. The first segment. 02:19:07

Q. Okay. And whose voice was it that we heard on the video? 02:19:08 02:19:11

A. That was Yvan Leclerc. 02:19:11

Q. And who wrote the script for that? 02:19:14

A. Yvan and I and Nathaniel Bletter wrote the script for that. 02:19:16 02:19:21

Q. Approximately when was this video prepared? 02:19:21

A. In 1994. Summer of 1994. 02:19:24

Q. What was the purpose of the video? 02:19:27
A. The purpose of the video was to demonstrate 02:19:29
TerraVision at the MAGIC Technical Symposium because 02:19:31
they had -- I was partially on medical leave at that 02:19:34
time, I myself could not attend the symposium so 02:19:37
this videotape was created in order to be able to 02:19:40
demonstrate the TerraVision system in my absence. 02:19:43
Q. And that was for the MAGIC Technical 02:19:46
Symposium in Lawrence, Kansas? 02:19:49
A. Yes. 02:19:50
Q. 1994? 02:19:51
A. 1994. 02:19:52
Q. Did that segment we saw accurately depict 02:19:55
the TerraVision system and its operation as of 1994? 02:20:00
MR. HAMELINE: Objection. 02:20:03
THE WITNESS: Yes. 02:20:04
BY MR. WOO: Q. Did that segment of the 02:20:04
tape that we just saw accurately describe the 02:20:07
TerraVision system and its operation in 1994? 02:20:09
MR. HAMELINE: Objection. 02:20:13
THE WITNESS: Yes. 02:20:13
BY MR. WOO: Q. Now, did we see, during 02:20:14
the video segment that we just saw, earth terrain 02:20:22
images going from fuzzy to sharp, high resolution? 02:20:27
A. Yes. 02:20:31

please. 02:25:54

BY MR. WOO: Q. Mr. Lau, do you recognize this segment of Exhibit 202 as a duplicate of the videotape that was provided to our office? 02:25:54 02:25:55 02:25:59

A. Yes. 02:26:01

Q. And what is this portion of the tape? 02:26:01

A. It's the second video that was created for the 1994 MAGIC Technical Symposium. 02:26:04 02:26:06

Q. Okay. And this was an video that was prepared while you were at SRI in 1994? 02:26:09 02:26:11

A. Yes. 02:26:14

Q. And whose voice was it that was heard on the video? 02:26:14 02:26:19

A. Yvan Leclerc. 02:26:19

Q. And the script for this video was something that you worked on? 02:26:21 02:26:23

A. Yeah. 02:26:24

Q. And this second segment that we just saw of Exhibit 202, that's the second segment that's referred to at the bottom of page 3 of Exhibit 98? 02:26:25 02:26:32 02:26:34

A. Yes. 02:26:37

Q. Did that second segment of this video, Exhibit 202 accurately depict the TerraVision system and its operation in 1994? 02:26:39 02:26:48 02:26:51

MR. HAMELINE: Objection. 02:26:52

Q. Yeah, it's near the back. It's Column 16. 02:45:06
If I could direct your attention to Claim 1. It 02:45:14
starts out saying, "A method of providing data 02:45:16
blocks" and goes on from there. 02:45:19
A. Yes. 02:45:20
Q. And it continues all the way until you get 02:45:21
to Claim No. 2. 02:45:23
A. Okay. 02:45:24
Q. Okay. Just read that to yourself for a 02:45:27
moment. 02:45:29
A. Okay. 02:45:39
Q. Did TerraVision practice all of the steps 02:45:39
outlined in Claim 1 of the 189 patent? 02:45:42
MR. HAMELINE: Objection. 02:45:46
THE WITNESS: Yes. 02:45:47
BY MR. WOO: Q. At the SIGGRAPH conference 02:45:47
in Los Angeles in 1995, did the demonstration that 02:45:50
you performed practice all of the steps outlined in 02:45:53
Claim 1? 02:45:56
MR. HAMELINE: Objection.
THE WITNESS: Yes. 02:45:56
BY MR. WOO: Q. Now, I believe you earlier 02:47:01
testified -- and correct me if I'm wrong -- that the 02:47:02
SIGGRAPH '95 conference in Los Angeles, you were 02:47:05
able to show people at the demonstration that the 02:47:07

earth terrain blocks came over a network? 02:47:11

A. Yes. 02:47:14

MR. HAMELINE: Objection. 02:47:14

BY MR. WOO: Q. And how did you do that? 02:47:14

A. We would sometimes disconnect the network, 02:47:17
physically disconnect the network from the back of 02:47:20
the machine to show people that the tiles were 02:47:22
actually coming from across the network. 02:47:25

Q. And was there something -- was there any 02:47:26
other way in which you showed people, you know, at 02:47:31
demonstrations how it was that the data blocks were 02:47:37
coming over a network? 02:47:42

A. We would show similar to what the video 02:47:43
showed the tile boundaries. And as the person was 02:47:49
moving around, we could actually see the tile 02:47:53
boundaries. And we also had a wire frame mode 02:47:56
where, while the user was flying around, they could 02:48:00
see the tiles coming into memory. 02:48:03

MR. WOO: Have we -- where are we in the 02:48:37
documents? 02:48:43

THE REPORTER: 204. 02:48:47

MR. WOO: Let's have marked as 204 a 02:48:48
multipage document bearing Control No. GOOG 21033 02:48:51
through 21233. 02:48:53

(Whereupon, Exhibit 204 was marked for

identification.) 02:48:58

BY MR. WOO: Q. Can you identify this 02:48:58

document, Exhibit 204? 02:49:27

A. Yeah. It's proceedings from the MAGIC 02:49:28

Technical Symposium that was held in Minneapolis, 02:49:33

Minnesota. 02:49:38

Q. Okay. And this was something -- this 02:49:38

document was prepared for that symposium? 02:49:40

A. Yes. 02:49:43

Q. And is this a copy of something from your 02:49:43

files that you kept in the ordinary business -- 02:49:47

excuse me. 02:49:50

Was this a copy of something that was kept 02:49:52

in your files in the ordinary course of your 02:49:54

business -- 02:49:56

A. Yes.

Q. -- at SRI? 02:49:56

A. Yes. 02:49:57

Q. And this Exhibit 204 is a copy of something 02:50:00

that was provided to our office from your files? 02:50:04

A. Yes. 02:50:06

Q. And was this prepared on or about August 02:50:06

of 1995? 02:50:11

MR. HAMELINE: Objection. 02:50:11

THE WITNESS: Yes. 02:50:12

BY MR. WOO: Q. Did you contribute to the preparation of these materials? 02:50:12 02:50:22

A. Yes, yes. 02:50:24

Q. And it was part of your regular practice at SRI to contribute to this kind of material? 02:50:27 02:50:35

MR. HAMELINE: Objection. 02:50:37

THE WITNESS: Yes. 02:50:38

BY MR. WOO: Q. Turn, if you would, please, to the page marked GOOG 21118. 02:50:38 02:50:44

A. 211- -- 02:50:55

MR. HAMELINE: -80? 02:50:56

MR. WOO: No. 21118, 21118. 02:50:57

THE WITNESS: Okay. 02:51:02

BY MR. WOO: Q. Now, this is not the greatest copy -- 02:51:07 02:51:08

A. Yeah. 02:51:09

Q. -- but can you tell from looking at this copy what this is? 02:51:09 02:51:12

A. Yes. 02:51:12

Q. What is this? 02:51:13

A. The upper -- there are two images screen captures of the TerraVision system. 02:51:14 02:51:17

Q. And what does the lower diagram represent? 02:51:19

A. The lower diagram represents the -- the viewing frustum, the area of view that's visible 02:51:22 02:51:26

from a particular point in the terrain. The lines there represent the actual viewing frustrum, the area of view. 02:51:31 02:51:34 02:51:39

Q. Did this particular depiction here anything to do with whether or not you could demonstrate to someone looking at the demonstration that this was actually working over a network? 02:51:40 02:51:42 02:51:45 02:51:47

MR. HAMELINE: Objection. 02:51:49

THE WITNESS: Yes. And in fact, we created this viewpoint on purpose as a component of TerraVision to demonstrate the -- both the coarse-to-fine and also the fact that the images -- the tiles were coming across a network. 02:51:50 02:51:51 02:51:54 02:51:56 02:51:58

BY MR. WOO: Q. And where was this facet of the demonstration demonstrated? 02:52:00 02:52:05

A. I'm sorry. Say that again. 02:52:07

Q. Yeah. This particular facet, this third-party view, I take it, where was that demonstrated? 02:52:08 02:52:12 02:52:15

MR. HAMELINE: Objection. 02:52:15

THE WITNESS: Sorry. 02:52:16

Once it became part of the actual TerraVision application, we demonstrated it pretty much every single time we demonstrated TerraVision, which would have been here at the 1995 MAGIC 02:52:17 02:52:18 02:52:21 02:52:24

symposium and any subsequent demos that happened after that. 02:52:26 02:52:30

BY MR. WOO: Q. Now, during the course of our discussion this day today and yesterday, we talked about a number of places where TerraVision was publicly demonstrated. 02:52:31 02:52:36 02:52:38 02:52:41

Were there other public demonstrations in addition to the ones we've talked about so far? 02:52:44 02:52:47

MR. HAMELINE: Objection. 02:52:49

THE WITNESS: Yes. 02:52:50

BY MR. WOO: Q. We're not going to go through all of them -- 02:52:50 02:52:52

A. Yeah. 02:52:52

Q. -- but approximately how many were there? 02:52:53

MR. HAMELINE: Objection. 02:52:54

THE WITNESS: Numerous ones. We demonstrated it in Washington, D.C. We demonstrated it in various parts across the country; demonstrated it here in the Bay Area with the -- what was called NTON, National Transparent Optical Network symposium here; used it to demonstrate at the BAGNET high-speed network that was developed here in the Bay Area. I -- you know, they were two numerous to count. 02:52:55 02:52:57 02:53:00 02:53:03 02:53:08 02:53:12 02:53:13 02:53:18 02:53:22

And also Sprint used the application, 02:53:22

sees the earth images going from fuzzy to high resolution? 02:56:08 02:56:11

MR. HAMELINE: Objection. 02:56:12

THE WITNESS: Yes. 02:56:12

MR. WOO: Let me have marked as Exhibit 205 a multipage document bearing Control Nos. GOOG 17566 through 17831. 02:56:47 02:56:49 02:56:59

(Whereupon, Exhibit 205 was marked for identification.) 02:57:04 02:57:24

BY MR. WOO: Q. Do you recognize Exhibit 205 as something that came from your files that you provided to our office? 02:57:24 02:57:26 02:57:30

A. Yes. 02:57:32

Q. And can you identify this, please. 02:57:33

A. Yes. It's the Visual Proceedings from the SIGGRAPH '95 conference that was held in Los Angeles, California. 02:57:35 02:57:37 02:57:40

Q. And can you describe what that document is about? 02:57:43 02:57:48

A. It -- the -- because SIGGRAPH was a computer graphics conference, most -- a lot of the demonstrations and papers revolved around computer graphics of course; so the visual proceedings accompanied the actual regular proceedings which had the papers. The visual proceedings had entries in 02:57:48 02:57:51 02:57:55 02:57:58 02:58:01 02:58:04

there for demonstrations and also for images that could not be made into the regular proceedings. 02:58:07 02:58:10

Q. Was Exhibit 205 something that you obtained at the SIGGRAPH '95 conference? 02:58:13 02:58:16

A. Yes. 02:58:19

Q. And was that maintained in your files as part of the ordinary course of business at SRI? 02:58:19 02:58:23

A. Yes. 02:58:25

MR. HAMELINE: Objection. 02:58:26

THE WITNESS: Sorry. 02:58:26

Yes. 02:58:27

BY MR. WOO: Q. Okay. If you could turn to the page marked GOOG 17699, about the middle of the document, I think. 02:58:28 02:58:44 02:58:54

A. Yes, okay. 02:59:05

Q. The page at the top it says "T_Vision." 02:59:06

A. Mm-hmm. 02:59:11

Q. At the SIGGRAPH '95 show in Los Angeles, you testified earlier about seeing a similar system exhibited by a German company? 02:59:16 02:59:19 02:59:23

A. Yes, by ART+COM. 02:59:25

Q. Is the system that's described on this page of Exhibit 205 that company? 02:59:27 02:59:33

A. Yes. Well, it's not a description of the company. 02:59:38 02:59:41

work without spilling water. 03:28:50

THE VIDEOGRAPHER: Do you want to go off 03:28:51
the record? 03:28:53

MR. WOO: Nope. We're okay. This will 03:28:55
only take a second. 03:28:57

BY MR. WOO: Q. Now, for my next series of 03:29:05
questions, I'm going to have the witness use this 03:29:13
CD-ROM that's been marked and produced as G-T_0020, 03:29:18
and I'll represent that this CD is a duplicate of 03:29:31
the CD of TerraVision source code that Mr. Lau 03:29:35
provided my office the other day. 03:29:47

A. Yes, it is, I'm assuming. 03:29:48

Q. Did you -- let me ask you that. 03:29:50

Did you, Mr. Lau, provide a copy of the 03:29:52
TerraVision source code to my office? 03:29:54

A. Yes. 03:29:56

Q. Okay. If you could, please, I'm going to 03:29:57
have you -- I'm going to insert this CD marked 03:30:03
G-T_0020 into this computer here. And if you could, 03:30:09
please, just verify whether that is or is not the 03:30:11
source code for TerraVision. 03:30:15

THE VIDEOGRAPHER: His mike just fell. 03:30:19

THE WITNESS: My mike just fell off? Okay. 03:30:22

It's already logged in. I'll just use the 03:30:26
touch pad. 03:30:37

Yes, it is a copy of the CD that I provided. 03:30:41 03:30:44

BY MR. WOO: Q. Can you -- now, having reviewed this on the laptop, can you please tell us what that is? 03:30:44 03:30:47 03:30:50

A. It is the source code and directory for TerraVision circa 1996 when I left SRI International. 03:30:51 03:30:54 03:30:59

Q. This is a copy of the source code of TerraVision as of the time you left SRI? 03:30:59 03:31:03

A. Yes. 03:31:05

Q. And approximately -- that was approximately May of 1996? 03:31:06 03:31:07

A. Yeah. 03:31:08

MR. WOO: Now that we have had you identify the CD, if I could have the court reporter mark it I'm not sure how. I don't think we want to put a label on it, but if you could somehow write in ten the next exhibit number in order. 03:31:17 03:31:19 03:31:23 03:31:25 03:31:29

(Whereupon, Exhibit 206 was marked for identification.) 03:31:57

MR. WOO: For the record, the source code that Mr. Lau has just examined and identified is now Exhibit 206. 03:32:00 03:32:02 03:32:06

Let me have marked as -- this is one whole 03:32:18

copy. Yeah, yeah. It's probably more efficient to have these marked by the court reporter all at once so let's go off the record for a brief second. 03:32:34 03:32:52 03:32:56

THE VIDEOGRAPHER: Time is 3:31, and we're off the record. 03:33:00 03:33:02

(Discussion held off the record.) 03:33:05

(Whereupon, Exhibits 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219 and 220 were marked for identification.) 03:35:16

THE VIDEOGRAPHER: Time is 3:34. We're back on record. 03:35:16 03:35:24

MR. WOO: While we were -- during -- while we were -- during the break, I have had the court reporter mark the next series of exhibits from Exhibits 207 through 220, and the collective range is from GOOG 26005 through 26930. 03:35:25 03:35:28 03:35:32 03:35:35 03:35:43

Just for the record, 207 is GOOG 26805 through 26807; Exhibit 208 is 26808; Exhibit 209 is 26809 through 26829; Exhibit 210 is 26830 through 26834; Exhibit 211 is 26835; Exhibit 212 is 26836; Exhibit 213 is 26837 through 26856; Exhibit 214 is 26857 through 26861; Exhibit 215 is 26862; Exhibit 216 is 26863 through 26867; Exhibit 217 is 26868; Exhibit 218 is 26869 through 26899; Exhibit 219 is 26900 through 26923; and Exhibit 220 03:35:50 03:35:54 03:36:06 03:36:20 03:36:35 03:36:46 03:37:00 03:37:15 03:37:25

is 26924 through 26930. 03:37:36

BY MR. WOO: Q. Now, did I state that 03:37:40
correctly? 03:37:43

A. I wasn't paying attention. 03:37:44

Q. Okay. 03:37:46

A. I'm sorry. Was I supposed to be paying 03:37:47
attention? 03:37:49

Q. No, no. That's okay. I think we're okay. 03:37:50
So let's go through, first of all, collectively 03:37:52
Exhibits 207 through 220. 03:37:55

A. Yeah. 03:37:58

Q. Mr. Lau, do you recognize those? 03:37:58

A. Yes. 03:38:00

Q. What are they? 03:38:00

A. They're printouts of a subset of the 03:38:01
TerraVision source code. 03:38:05

Q. And these you recognize as source code from 03:38:06
the disk that we marked as 206? 03:38:08

A. Yes. 03:38:10

Q. Now, could you explain, please, what 03:38:12
Exhibit 207 is. 03:38:21

A. 207 is the header file called Ts.h that -- 03:38:23
I'm sorry. Ts.h. Sorry about that. 03:38:31

Q. What function, if any, of TerraVision does 03:38:32
this relate to? 03:38:35

A. This actually has a -- definitions for the tile and the construction of the connection to obtain the tile information, to also -- the header to make the request from the Image Service Systems. And somehow it got -- and also it had the definition of a tile in it. 03:38:36 03:38:39 03:38:43 03:38:46 03:38:51 03:38:59

Q. Okay. 03:39:00

A. Among other things. There's more to it, but . . . 03:39:04 03:39:06

Q. What is Exhibit 208? 03:39:07

A. 208 is a header file for a structure that I developed called TWODWIDGET, and that would allow the form -- there was a data structure that would allow the person to be able to pan and zoom across the data set. 03:39:10 03:39:16 03:39:20 03:39:23 03:39:26

Q. Okay. What is Exhibit 209? 03:39:27

A. 209 is TWODWIDGET.C. It is the source code, the implementation of the data structure TWODWIDGET. -- that was defined in TWODWIDGET.H, would actually -- rendered the the 2D -- two-dimensional image on the screen, requested the tiles, also acted as a user interface for it too, and determined where the viewpoint was. 03:39:31 03:39:35 03:39:39 03:39:41 03:39:47 03:39:51 03:39:54

Q. Okay. What is Exhibit 210? 03:39:56

A. This actually is called Ts -- I hated this 03:40:02

name. TsTsm.c. It was the tiles -- connection for the tile server manager that got the geospatial pyramids for very -- the different tile sets, the multiresolutions and would also would get all the coordinate information for the various image pyramids. 03:40:11 03:40:17 03:40:21 03:40:24 03:40:28 03:40:31

Q. Did you hate TsTsm.c because it was hard to pronounce? 03:40:32 03:40:39

A. Yes. 03:40:39

Q. All right. What is Exhibit 211? 03:40:40

A. TsPrivate.h. This actually was a header file that was part of the actual tile cache or cache to store various tiles as they came in from off the network. 03:40:43 03:40:49 03:40:54 03:40:58

Q. What is Exhibit 212? 03:40:59

A. That is Visible.h. It is a header file that allows -- that was the component for TerraVision to do visibility calculations which tiles were visible or will be visible. 03:41:05 03:41:12 03:41:16 03:41:18

Q. What is Exhibit 213? 03:41:21

A. Two hundred thirteen is called TsTileStruct.c. Okay. 03:41:26 03:41:26

Q. And what did it do? 03:41:30

A. It was implementation of the various -- the cache management system. All the tiles were read in 03:41:32 03:41:36

and stored in memory, and this -- that was all handled via this file. 03:41:39 03:41:42

Q. Okay. What is Exhibit 214? 03:41:46

A. It was called TsTileMgr.c. It is the source code. It manages a number of tiles in memory, so it would -- could be configural based upon the available network bandwidth and also the machine architecture. 03:41:51 03:41:54 03:41:57 03:42:01 03:42:04

Q. What is Exhibit 215? 03:42:05

A. Two hundred fifteen is called Texture.h. It is the header file for the texture cache to store the imagery. 03:42:07 03:42:10 03:42:13

Q. What is Exhibit 216? 03:42:15

A. Two hundred sixteen was Texture.c. It allows -- allowed TerraVision to -- what was called paging, texture paging. It moved the images from local memory into what was called texture memory, which was a cache inside the actual physical hardware texturing that allowed the system to do hardware -- what is called hardware texture mapping. 03:42:18 03:42:23 03:42:24 03:42:27 03:42:30 03:42:34 03:42:38

Q. What is Exhibit 217? 03:42:42

A. Two hundred seventeen is called ThreeDWidget.h. It was the header file that was the -- that defined the structure that displayed the three-dimensional view of the out-the-window view of 03:42:43 03:42:47 03:42:50 03:42:53

TerraVision that rendered the terrain and stuff. 03:42:56

Q. What is Exhibit 218? 03:43:02

A. 218 is ThreeDWidget.c. It actually did all 03:43:05
the heavy lifting for the drawing of the terrain, 03:43:10
determining what resolution was necessary, and 03:43:14
rendering the available tiles onto the screen and 03:43:17
whatever other structures were on there such as 03:43:21
buildings or vehicles or whatever. 03:43:23

Q. What is Exhibit 219? 03:43:28

A. Two hundred nineteen is TerraVision.c. It 03:43:29
was actually the main source code file where, when 03:43:33
you fired up TerraVision, where it would enter -- 03:43:35
start off, it would do a lot the initialization and 03:43:38
a lot of the graphical user interface 03:43:42
initialization, determine all the local environment 03:43:46
variables, and then it would start running, connect 03:43:48
to the ISS, the Image Service Systems, and then 03:43:52
start running. 03:43:56

Q. What is Exhibit 220? 03:43:56

A. Two hundred twenty is called VISIBLE.C. It 03:43:58
is the source code file that actually generates 03:44:02
which tiles were visible and also generates the 03:44:05
request list to be sent off to the ISS. 03:44:08

Q. Now, someone with the source code that was 03:44:14
provided as Exhibit 206 could compile it and then 03:44:18

run a version of TerraVision? 03:44:24

MR. HAMELINE: Objection. 03:44:27

THE WITNESS: I'm sorry. I'm sorry. Say 03:44:27

that again. Repeat the question. 03:44:28

BY MR. WOO: Q. Someone with the source 03:44:30

code that was provided -- that was marked as 03:44:32

Exhibit 206 could compile it and then run it as a 03:44:34

version of TerraVision? 03:44:37

MR. HAMELINE: Objection. 03:44:38

THE WITNESS: Yes. 03:44:40

BY MR. WOO: Q. Of the Exhibits 207 03:44:40

through 220, did you participate in the preparation 03:44:55

of any of -- or the -- strike that. 03:45:00

As to Exhibits 207 through 220, did you 03:45:03

write any portion of that? 03:45:08

A. Yes. 03:45:10

Q. And what portions? 03:45:11

A. For this portion of the code, somewhere 03:45:12

probably around 90, 95 percent of the code. 03:45:14

Q. When did you provide a copy of the source 03:45:16

code to my office for the first time? 03:45:28

A. I do not remember the date. I -- 03:45:30

Q. Last couple days? 03:45:33

A. Yeah. Last couple days. Within the last 03:45:34

week, I believe. 03:45:36

not one of them. 04:59:44

BY MR. HAMELINE: Q. Okay. The -- I think 04:59:46
in your earlier testimony you indicated that the 04:59:53
MAGIC system was an Internet spanning several 04:59:55
cities? 05:00:01

A. Yeah. 05:00:02

Q. Okay. When you refer to -- I saw the word 05:00:02
here used Internetwork and you used the word 05:00:05
Internet, do you use those interchangeably? 05:00:08

A. I typically don't use Internetwork. I 05:00:11
typically don't use that word. 05:00:15

Q. All right. When you use the term 05:00:15
Internet -- 05:00:17

A. Yes.

Q. -- what do you mean? 05:00:17

A. I typically mean systems that are connected 05:00:17
to the -- what is now known as the Internet 05:00:20
backbone. They have routes connected to it. 05:00:25

Q. Okay. And did you understand the MAGIC 05:00:28
network to be an Internet network? 05:00:30

A. Yes, it is. It had direct connections to 05:00:32
the Internet. 05:00:35

Q. Okay. And when you were communicating 05:00:36
between the Lawrence, Kansas -- Lawrence, Kansas 05:00:39
where one of the facilities was? 05:00:49

A. The facilities was.
Q. Yes.
A. Yeah. 05:00:51
Q. Okay. And in South Dakota, is that where 05:00:51
one of the sites -- 05:00:53
A. Sioux Falls, South Dakota. 05:00:53
Q. Okay. When you were communicating between 05:00:55
these two sites, were you communicating -- by "you," 05:00:58
I mean the system -- communicating over the 05:01:00
Internet? 05:01:02
A. It depended on the state of the network at 05:01:03
the time. 05:01:05
MR. HAMELINE: Okay. Let me show you what 05:01:21
I'm going to mark as the next. 05:01:22
(Whereupon, Exhibit 226 was marked for
identification.) 05:01:48
BY MR. HAMELINE: Q. Exhibit 226 is 05:01:48
entitled MAGIC Gigabit Test Bed Research Plan, 05:01:51
Preliminary Draft, January 19th, 1992. 05:01:54
A. Yes. 05:01:58
Q. Do you recognize that document? 05:01:59
A. Yeah, I do. 05:02:00
Q. Okay. Were you involved in preparing that 05:02:01
document? 05:02:03
A. No, actually, because I did not join SRI at 05:02:03

at 1992, it would be? 05:09:11

A. A gigabit network? 05:09:12

Q. Yes. 05:09:14

A. A gigabit network was considered a high-performance network at that time, yes. 05:09:15 05:09:16

Q. Okay. The next sentence reads, 05:09:17

Gigabit-per-second wide-area networks promise the next major advance in computing and communications geographically distributed network Supercomputers with channel-speed access to remote and time-critical data sources. 05:09:19 05:09:27 05:09:31 05:09:35 05:09:37

Do you see that? 05:09:39

A. Yes. 05:09:40

Q. In the context of the MAGIC project and the work you did on the MAGIC project, why was this gigabit-per-second wide-area network relevant? Why was a high-speed network relevant? 05:09:40 05:09:44 05:09:47 05:09:51

MR. WOO: Object to the form. Foundation. Calls for speculation. 05:09:54 05:09:55

THE WITNESS: Could you repeat the question again, please? 05:09:59 05:10:01

BY MR. HAMELINE: Q. Sure. Well, let me just ask the more general question, then. 05:10:02 05:10:04

A. Yeah.

Q. Was it relevant to the work that you were 05:10:06

doing in connection with the MAGIC project to have a very high-speed wide-area network? 05:10:08 05:10:12

A. No. The TerraVision application did not necessary have to run on a high-speed network. 05:10:17 05:10:18

Q. Okay. Was SRI funded as part of the MAGIC project? 05:10:23 05:10:26

A. Yes. 05:10:26

Q. Okay. And was SRI funded to run -- to create an application to run on the MAGIC backbone? 05:10:27 05:10:30

A. Yes. 05:10:32

Q. Okay. So you're saying that it was irrelevant to the project and the funding as to whether TerraVision would use this high-speed network? 05:10:33 05:10:35 05:10:37 05:10:40

MR. WOO: Objection. Misstates his testimony. Argumentative. 05:10:41 05:10:42

MR. HAMELINE: That's why it's a question. 05:10:43

THE WITNESS: That's why we designed TerraVision the way it could because it could scale and be able to take advantage of as fast of a network that you could possibly provide. 05:10:44 05:10:46 05:10:49 05:10:53

BY MR. HAMELINE: Q. Okay. And --

A. And one of the design reasons for it was because we did not a gigabit speed network at SRI. And since I was sitting at SRI, I -- you know, you 05:10:55 05:10:57 05:11:01

had to run on something. 05:11:04

BY MR. HAMELINE: Q. Okay. And one of the 05:11:05
goals in developing and designing the TerraVision 05:11:08
application was to be able to download this data 05:11:12
from a remote server. 05:11:15

A. Mm-hmm. 05:11:17

Q. Is that correct? 05:11:17

A. Yes. 05:11:18

Q. Okay. And you wanted to be able to do that 05:11:19
in a real-time application -- 05:11:21

A. Yes. 05:11:23

Q. -- correct? 05:11:23

At the bottom of page 5 there's a reference 05:11:24
to application. 05:11:32

A. Mm-hmm. 05:11:33

Q. It reads application requirements, it looks 05:11:33
like it's crossed off, and TV application is put in. 05:11:35

A. Mm-hmm.

Q. Do you see that? 05:11:40

A. Yes. 05:11:40

Q. The first sentence reads, The selection of 05:11:40
a specific terrain visualization application for a 05:11:42
demonstration of the MAGIC research network is based 05:11:46
on several factors, and there are a number of 05:11:48
different factors listed. And one of them is its 05:11:51

State of California) ss.
COUNTY OF ALAMEDA)

I, SUSAN F. MAGEE, RPR, CLR, a Certified Shorthand Reporter in and for the State of California and disinterested person, do hereby certify:

That prior to being examined, the deponent named in the foregoing deposition was by me duly sworn to testify the truth, the whole truth, and nothing but the truth;

That the said deposition was taken before me at the time and place therein stated and was thereafter transcribed into typewriting under my direction; that the foregoing deposition is a true record of the witness's testimony as reported by me; that the deponent was given an opportunity to read, correct and sign the deposition transcript.

I further certify that I am not related to any party or counsel or attorney for any of the parties in the foregoing deposition or in any way interested in the outcome of the action herein.

Susan F. Magee, ~~RPR~~, CLR
CSR No. 11661