

IN THE UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

APPLE COMPUTER, INC.,

Plaintiff and Counterdefendant,

vs.

Case No. 3:06-CV-00019 MHP

BURST.COM, INC.,

Defendant and Counterclaimant,

AND RELATED COUNTERCLAIMS.

DEPOSITION OF GREG MULLINS

PAGES 1 to 127

FRIDAY, FEBRUARY 23, 2007

REPORTED BY: LOUISE MARIE SOUSOURES, CSR NO. 3575

1 only thing I can think of.

2 Q. So you don't know what the reference to  
3 variable rate in this sentence is referring to?

4 A. No.

5 Q. Okay.

6 MR. CROSBY: I think that's all I have  
7 today. Pass the witness.

8 MR. BROWN: All right. I have two or three  
9 questions briefly.

10 EXAMINATION BY MR. BROWN:

11 Q. Mr. Mullins, do you remember you were asked  
12 some questions earlier about the AIFF format?

13 A. Yes.

14 Q. Is AIFF a digital format?

15 A. Yes.

16 Q. So is audio digitized before it can be put  
17 into the AIFF format?

18 A. Yes.

19 Q. Do you consider digitization to be  
20 compression?

21 A. I consider it to be a form of compression,  
22 yes.

23 Q. To your knowledge, is the video -- I'm  
24 sorry.

25 To your knowledge, is the audio in AIFF

1 format compressed in any other way besides being  
2 digitized?

3 A. Not that I'm aware of.

4 MR. BROWN: That's all I have.

5 FURTHER EXAMINATION BY MR. CROSBY:

6 Q. So just to follow up on that, is it your  
7 understanding that the AIFF process occurs at the  
8 time of digitization of audio?

9 A. No. What I'm saying is that -- is it a  
10 compressed format, and differentiation between  
11 whether it's a compressed format or not to me is is  
12 it smaller than the original asset.

13 By digitizing it, you're actually losing  
14 some of the original information.

15 It's similar to YUV, you know, you're  
16 dropping components of the video 4:2:2.

17 Q. I guess -- so you said you considered  
18 digitization to be a form of compression, correct?

19 A. Yes.

20 Q. So taking the analog source and converting  
21 it to digital, in your mind, would be a form of  
22 compression?

23 A. Just like DV, yes.

24 Q. So in what sense is taking -- in your mind,  
25 is taking analog audio, which has no number of bits

1 associated with it, and converting it into a digital  
2 format that does have some number of bits associated  
3 with it?

4 In what sense do you view it as compression?

5 A. There's some information being dropped on  
6 the floor.

7 Q. For example, if you were encoding it at a  
8 high sampling rate and using a Lossless encoding  
9 technique you would still view it as being  
10 compression because the information in between the  
11 sample points is information that's lost; is that  
12 correct?

13 A. You're losing information from the original  
14 source, even if it's Lossy or Lossless.

15 Q. So you understand the term compression to be  
16 broader than simply reducing the number of bits to  
17 represent something, correct?

18 A. I consider compression to be if any of the  
19 original information is lost, and the resultant is  
20 smaller than the original, that is a form of  
21 compression.

22 Q. Well, in what sense is a digital  
23 representation of an analog audio source smaller than  
24 the original?

25 A. It has less information.

1 Q. Okay. But you described it as there being  
2 two attributes to compression as you understood it.

3 One is that information is lost and two is  
4 it's smaller than the original?

5 A. Then maybe I should retract the smaller than  
6 the original, just dropping information on the floor.

7 So it's not a full representation of the  
8 original information.

9 Q. So is it your view, then, a Lossless  
10 compression technique would not be compression? Is  
11 Lossless compression an oxymoron in your view?

12 A. It is a compression algorithm.

13 Q. But no information is lost?

14 A. I think if you were to put -- if you had a  
15 high end audio equipment and played the original in  
16 what was on Lossless, you would notice a difference  
17 in the quality.

18 Q. But the information is not lost, is it?

19 A. I don't really understand the specifics of  
20 the Lossless compression you might be referring to,  
21 but I do know there's a difference in the amount of  
22 information between the original and the resultant is  
23 different.

24 Q. Well, isn't it true that if I take, say for  
25 example, the Apple Lossless CODEC and I apply it to a

1 digital audio stream and then I reverse the process,  
2 that I'll have a bit-for-bit identical copy of the  
3 original audio stream?

4 A. I don't know that.

5 Q. Okay. So you don't know how Lossless  
6 compression works?

7 A. Not specifically.

8 Q. And you don't know whether information is  
9 lost or retained in the process?

10 A. I can't say that I know for sure that it's  
11 lost, but I mean it's not the original content.

12 Q. But you don't know whether that  
13 Losslessly-compressed file contains all the  
14 information that was there in the original source?

15 A. I don't know that.

16 Q. And similarly -- and to the -- is it your  
17 testimony that you believe that a digital -- a  
18 digitally sampled representation of an analog audio  
19 source is a compressed form of that original source;  
20 is that correct?

21 A. Well, I was specifically referring to AIFF  
22 and now we've generalized it to be anything.

23 Q. Well, I think that Mr. Brown's first  
24 question to you is whether you viewed digitization as  
25 being a form of compression; is that correct?

1 A. It can -- yes, it can be a form of  
2 compression.

3 Q. And your answer was that it can be a form of  
4 compression?

5 A. Yes, but it doesn't mean -- I don't want to  
6 generalize and say anything in that fashion, but I do  
7 think in that particular case it is.

8 And the same thing for digitizing video,  
9 you're dropping components of the information because  
10 it's considered irrelevant, you're not going to be  
11 able to distinguish whether color information has  
12 been dropped on the floor so why carry it around.

13 Q. But to be clear, your testimony is that  
14 converting analog source to digital format is always  
15 compression no matter what digital format it is,  
16 because information is lost, correct?

17 A. Yes.

18 Q. And it is in that sense alone that  
19 conversion from analog to digital is compression,  
20 correct?

21 A. Yes.

22 Q. Because the digital file is not smaller than  
23 the analog source information, correct?

24 MR. BROWN: Objection, vague.

25 THE WITNESS: I don't know.

1 BY MR. CROSBY:

2 Q. I mean that's like saying, you know, red is  
3 bigger than round, right?

4 A. I don't know.

5 Q. Analog source information doesn't have a  
6 size, does it?

7 A. I guess not.

8 Q. Okay. So to the extent you understand that  
9 process of digitization of analog source to be  
10 compression, you understand it to be that way only in  
11 the sense that information is removed, correct?

12 A. Yes.

13 Q. Okay. You don't understand it to be that  
14 way in the sense that any comparable measure of size  
15 is reduced, correct?

16 A. Yes.

17 Q. Okay.

18 MR. CROSBY: That's all.

19 MR. BROWN: Okay. I have no questions.

20 THE VIDEOGRAPHER: This is the end of volume  
21 1 tape number 2 in the deposition of Greg Mullins.  
22 The original videotapes will be retained by Dan  
23 Mottaz Video Productions, LLC, 182 Second Street,  
24 Suite 202, San Francisco, California, 94105,  
25 telephone is 415-624-1300.

1           The time is now 12:06 and we are off the  
2 record.

3  
4           (Whereupon, at 12:06 p.m. the FEBRUARY 23,  
5 2007 deposition of GREG MULLINS was adjourned.)

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10                                   GREG MULLINS

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1 I, LOUISE MARIE SOUSOURES, duly authorized to  
 2 administer oaths pursuant to Section 2093(b) of the  
 3 California Code of Civil Procedure, do hereby  
 4 certify: That the witness in the foregoing deposition  
 5 was by me duly sworn to testify the truth in the  
 6 within-entitled cause; that said deposition was taken  
 7 at the time and place therein cited; that the  
 8 testimony of the said witness was reported by me and  
 9 was hereafter transcribed under my direction into  
 10 typewriting; that the foregoing is a complete and  
 11 accurate record of said testimony; and that the  
 12 witness was given an opportunity to read and correct  
 13 said deposition and to subscribe the same.

14 Should the signature of the witness not be  
 15 affixed to the deposition, the witness shall not have  
 16 availed himself or herself of the opportunity to sign  
 17 or the signature has been waived.

18 I further certify that I am not of counsel,  
 19 nor attorney for any of the parties in the foregoing  
 20 deposition and caption named, nor in any way  
 21 interested in the outcome of the cause named in said  
 22 caption.

23

24 DATED: \_\_\_\_\_, 2007

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