

**Exh. B**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE MARILYN HALL PATEL, JUDGE

APPLE COMPUTER,	)	
	)	
PLAINTIFF,	)	
	)	
VS.	)	NO. C 06-0019 MHP
	)	
BURST.COM.	)	
	)	
DEFENDANT.	)	
_____	)	

SAN FRANCISCO, CALIFORNIA  
THURSDAY, FEBRUARY 1, 2007

**TRANSCRIPT OF PROCEEDINGS**

**APPEARANCES:**

FOR PLAINTIFF:                   WEIL, GOTSHAL & MANGES  
  201 REDWOOD SHORES PARKWAY  
  REDWOOD SHORES, CA 94065

BY: **MATTHEW D. POWERS**  
     **GARLAND T. STEPHENS**  
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      ATTORNEYS AT LAW

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BY: **PARKER C. FOLSE III**  
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      ATTORNEYS AT LAW

**(APPEARANCES CONTINUED ON FOLLOWING PAGE)**

REPORTED BY:                    JAMES YEOMANS, CSR #4039, RPR  
  OFFICIAL REPORTER

COMPUTERIZED TRANSCRIPTION BY ECLIPSE

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**APPEARANCES: (CONTINUED)**

FOR DEFENDANT: HEIMPAYNE  
CHORUSH  
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BY: **MICHAEL F. HEIM**  
**LESLIE V. PAYNE**  
**ATTORNEYS AT LAW**

1 OR VIEW COMPRESSED VIDEO OR FOR THAT MATTER COMPRESSED IMAGES  
2 WE HAVE TO DECOMPRESS IT FIRST, UNPACK THE BITS, THEN REARRANGE  
3 THEM INTO A SONG OR VIDEO.

4 NOW, COMPRESSION IS SOMETIMES REFERRED TO AS ENCODING  
5 OR CODING. NOW, THESE ARE VERY GENERAL WORDS IN SIGNAL  
6 PROCESSING AND THEY'RE USED TO DESCRIBE MANY DIFFERENT  
7 FUNCTIONS.

8 IN THIS CASE YOU WILL SEE ME THROUGHOUT THE TUTORIAL  
9 USING THEM, ENCODING AND CODING, I'M USING THEM AS SYNONYMS FOR  
10 COMPRESSION.

11 SO HERE I'VE GIVEN THE WHOLE END-TO-END BLOCK DIAGRAM  
12 FOR COMPRESSION OPERATION. WE START OFF WITH OUR ORIGINAL  
13 SOURCE FILES, SO THIS COULD BE OUR DIGITIZED AUDIO OR DIGITIZED  
14 VIDEO AND IT'S INPUT TO A COMPRESSOR, THIS IS GOING TO REDUCE  
15 THE NUMBER OF BITS OR THE FILE SIZE REQUIRED TO REPRESENT THE  
16 SOURCE INFORMATION.

17 SO HERE IN THE MIDDLE WE CALL THIS THE COMPRESSED  
18 FILE. YOU CAN SEE I'VE SHOWN IT WITH FEWER BITS. THIS  
19 OPERATION IS REVERSED BY THE DECOMPRESSOR.

20 SO SOMETIMES, I THINK, PEOPLE CALL THIS AN INFLATER,  
21 IN VERY COLLOQUIAL SPEECH IT UNPACKS THE COMPRESSED FILE AND  
22 GIVES US BACK A VERSION, AND I'LL CLARIFY WHAT I MEAN BY THAT  
23 IN A MOMENT, A VERSION OF AUDIO/VIDEO INFORMATION WHICH WE CAN  
24 SEE OR HEAR.

25 NOW, ONE VERY IMPORTANT POINT I NEED TO MAKE ON THIS

1 FROM POINT A TO POINT B, WE'RE LOOKING AT DIFFERENT LEVELS  
2 WHERE VARIOUS EVENTS OCCUR.

3 IN 24 CASES GETTING THE FILES SMALLER IS GOING TO  
4 ALLOW THEM TO BE DOWNLOADED FASTER BECAUSE YOU JUST HAVE FEWER  
5 BITS, RIGHT, FEWER BITS ARE GOING TO TAKE LESS TIME TO GET FROM  
6 POINT A TO POINT B.

7 **THE COURT:** THANK YOU.

8 **DR. HEMAMI:** THESE ARE EXCELLENT QUESTIONS.

9 **THE COURT:** I THINK, I MAY GET A DIFFERENT RESPONSE  
10 FROM APPLE.

11 AM I CORRECT, MR. POWERS?

12 **MR. POWERS:** SLIGHTLY DIFFERENT, YES.

13 **DR. HEMAMI:** OKAY. SO WE SPENT A LOT OF TIME TALKING  
14 ABOUT VIDEO, SO I HAVE ONE SLIDE ON AUDIO BECAUSE WE WANT TO  
15 TOUCH ON THAT AS WELL. IT'S JUST NOT NEARLY AS SEXY AS VIDEO  
16 FOR ME.

17 SO THE AUDIO COMPRESSION IN THE BURST PATENT'S CATEGORY  
18 TWO COMPRESSION, THIS IS THE RELATIVE -- LET'S LOOK AT SEVERAL  
19 SAMPLES AT THE TIME IS DESCRIBED.

20 AND THE SPECIFICATIONS SPECIFICALLY USES THE TERMS  
21 CONVENTIONAL ALGORITHMS. SO IF WE LOOK AT WHAT ARE  
22 CONVENTIONAL ALGORITHMS THAT WERE USED IN '88 TIME FRAME, AND  
23 FOR THAT MATTER NOW AS WELL, ONE CONVENTIONAL ALGORITHM IS WITH  
24 THE AUDIO, WE TAKE MULTIPLE SAMPLES AT A TIME, WE COMPUTE  
25 DIFFERENCES BETWEEN THIS GROUP OF SAMPLES, GROUPS OF SAMPLES

1 USING FIXED OR CHANGING EQUATION, THEN WE ENCODE THESE  
2 DIFFERENCES, THEN IS OUR COMPRESSION OPERATION FOR AUDIO.

3 DIFFERENTIAL PULSE CODE MODULATION WAS AND IS VERY  
4 COMMONLY USED FOR AUDIO CODING. THE SPECIFICATIONS MENTIONS A  
5 FORM OF DCPN, WHICH IS FIBONACCI DELTA COMPRESSION.

6 IN SOME INSTANCES WE CAN USE TECHNIQUES, FILTER  
7 TECHNIQUES. THESE ARE MORE SOPHISTICATED WAYS TO COMPUTE  
8 DIFFERENCES BETWEEN ADJACENT SAMPLES THAT ALLOW US TO DO AN  
9 EVEN BETTER JOB OF COMPRESSING THE AUDIO. AGAIN, BETTER JOB, I  
10 MEAN SMALLER FILES.

11 NOW, WHAT I'D LIKE TO DO IS END UP MY COMPRESSION  
12 SECTION JUST WITH HOW DO WE THINK ABOUT THESE COMPRESSED FILES  
13 AND THE COMPRESSED REPRESENTATION. SO WHAT I HAVE HERE IS OUR  
14 BLOCK DIAGRAM OUR ENTIRE COMPRESSION DECOMPRESSION SYSTEM.

15 AND LET'S SUPPOSE, THAT WE START OFF WITH A CONVERTED  
16 VIDEO, SAY THE BEATLES WITH LET IT BE, WHICH IS THREE MINUTES  
17 LONG. WERE I TO DIGITIZE THAT ENTIRE FILE IN TERMS OF THE  
18 AUDIO AND THE VIDEO I WOULD END UP WITH 1.3 GIGABYTES OF DATA.  
19 VERY, VERY LARGE AMOUNT OF DATA.

20 AND THE BYTE RATE -- THIS IS THE RAW DATA RATE THAT  
21 THE BYTES WOULD BE COMING OUT OF ANALOG TO DIGITAL CONVERTERS  
22 FOR THE AUDIO AND THE VIDEO IS 57.4 MEGABYTES PER SECOND. I  
23 GOT THIS NUMBER BY ADDING THE AUDIO BYTE RATE WE SAW EARLIER  
24 AND THE VIDEO BYTE RATE WE SAW EARLIER, THIS IS NET PACKAGE  
25 AUDIO AND VIDEO.

CERTIFICATE OF REPORTER

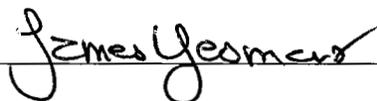
I, THE UNDERSIGNED, HEREBY CERTIFY THAT THE FOREGOING PROCEEDINGS WERE REPORTED BY ME, A CERTIFIED SHORTHAND REPORTER, AND WERE THEREAFTER TRANSCRIBED UNDER MY DIRECTION INTO TYPEWRITING; THAT THE FOREGOING IS A FULL, COMPLETE AND TRUE RECORD OF SAID PROCEEDINGS.

I FURTHER CERTIFY THAT I AM NOT OF COUNSEL OR ATTORNEY FOR EITHER OR ANY OF THE PARTIES IN THE FOREGOING PROCEEDINGS AND CAPTION NAMED, OR IN ANY WAY INTERESTED IN THE OUTCOME OF THE CAUSE NAMED IN SAID CAPTION.

THE FEE CHARGED AND THE PAGE FORMAT FOR THE TRANSCRIPT CONFORM TO THE REGULATIONS OF THE JUDICIAL CONFERENCE.

FURTHERMORE, I CERTIFY THE INVOICE DOES NOT CONTAIN CHARGES FOR THE SALARIED COURT REPORTER'S CERTIFICATION PAGE.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND THIS 5TH DAY OF FEBRUARY, 2007.



JAMES YEOMANS, CSR, RPR