

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE CHARLES A. LEGGE, JUDGE

THE MAGNAVOX COMPANY, A CORPORATION,)
AND SANDERS ASSOCIATES,)
INC., A CORPORATION,)
PLAINTIFFS,)
VS.)
ACTIVISION, INC., A CORPORATION,)
DEFENDANT.)
AND RELATED CROSS-ACTION.)

*RIBBENS
Testimony
& Cross*

C 82-5270 CAL

SAN FRANCISCO, CALIFORNIA
WEDNESDAY, JUNE 12, 1985

APPEARANCES:

FOR PLAINTIFFS:

MC CUTCHEN, DOYLE, BROWN & ENERSON
THREE EMBARCADERO CENTER
SAN FRANCISCO, CA. 94111

BY: ROBERT EBE, ESQ.

AND

NEUMAN, WILLIAMS, ANDERSON & OLSON
77 WEST WASHINGTON ST, STE. 2000
CHICAGO, ILLINOIS 60602

BY: THEODORE M. ANDERSON, ESQ.
JAMES T. WILLIAMS, ESQ

FOR DEFENDANT:

HOWARD, RICE, NEMEROVSKI, CANADY,
ROBERTSON & FALK
THREE EMBARCADERO CENTER, 7TH FLOOR
SAN FRANCISCO, CA. 94111

BY: MARTIN R. GLICK, ESQ.
H. JOSEPH ESCHER III, ESQ.
MARLA J. MILLER, ESQ.

REPORTED BY: LAWRENCE J. WHITE, CSR, CP, CM
ROBERTA L. ROGERS, CSR, CP, CM
COMPUTERIZED TRANSCRIPTION BY XSCRIBE

APPEARANCES (CONTINUED)

FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT
FOUR EMBARCADERO CENTER
34TH FLOOR
SAN FRANCISCO, CA. 94111

BY: SCOTT HOVER-SMOOT, ESQ.

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1 WEDNESDAY JUNE 12, 1985

2 THE COURT: ARE WE READY TO RESUME WITH DR. RIBBENS?

3 MR. ANDERSON: YES, YOUR HONOR. I HAVE TWO
4 HOUSEKEEPING MATTERS, IF I MAY.

5 FIRST, YESTERDAY IN THE TRANSCRIPT AT PAGE 5-108 AND
6 5-109 WE HAD A VERY BRIEF DIALOGUE OR COLLOQUY ABOUT THE OTHER
7 CONSOLES OTHER THAN THE ATARI 2600. I WOULD JUST LIKE TO READ
8 ABOUT TEN LINES AND MAKE ONE COMMENT.

9 THE COURT: WHAT ARE YOU DOING? CORRECTING, ARE YOU?

10 MR. ANDERSON: ESSENTIALLY, YOUR HONOR. I CONCLUDED
11 THE TECHNICAL DESCRIPTION OF HOW THE COLECO, THE ATARI, THE
12 COLECO ADAPTOR AND THE ATARI ADAPTOR ALL WORK ESSENTIALLY THE
13 SAME. MR. GLICK NODDED, AND THEN MR. GLICK SAID "RIGHT."

14 THEN I MADE A WRAPUP COMMENTARY:

15 "THEY ARE ESSENTIALLY THE SAME CONSOLE FOR ANY PURPOSES
16 OF THIS LAWSUIT."

17 I WAS ONLY REFERRING TO TECHNOLOGICALLY, AS CLEAR FROM
18 THE TEXT. I DON'T KNOW THAT THERE IS ANY OTHER ISSUE ABOUT THE
19 SOURCE, WHETHER IT CAME FROM COLECO OR ATARI, OR ANYTHING LIKE
20 THAT. I DIDN'T WANT TO HAVE THAT BROAD STATEMENT MISCONSTRUED
21 BY ANYONE.

22 THE COURT: OKAY. YOUR POINT--I DON'T KNOW WHETHER IT
23 IS A POINT OR A FACT OR AN ARGUMENT, BUT WHATEVER IT IS--IS THAT
24 THE COLECO CONSOLE AND ATARI LARGER CONSOLE ARE NO DIFFERENT
25 FROM THE ATARI 2600 FOR PURPOSES OF THIS SUIT?

1 MR. ANDERSON: FOR TECHNICAL PURPOSES. AS FAR AS THE
2 CIRCUITS GOES, AS I UNDERSTAND, THEY ARE TOTALLY
3 INTERCHANGEABLE. THE SAME ACTIVISION CARTRIDGES PLUG IN TO THE
4 COLECO, THE COLECO GEMINI WITH AN ADAPTOR, THE ATARI 2600, OR
5 THE ATARI 5200 WITH AN ADAPTOR FUNCTION EXACTLY THE SAME.

6 THAT WAS THE ONLY POINT THAT WAS BEING MADE THERE.
7 THERE IS NOTHING TO DO WITH WHO MANUFACTURED IT, OR ANYTHING OF
8 THAT SORT.

9 MR. GLICK: WE DON'T QUITE AGREE WITH THE LAST
10 STATEMENT. BUT LET'S NOT TAKE UP TIME IN ARGUMENT ABOUT IT.
11 THEY ARE DIFFERENT CARTRIDGES FOR DIFFERENT SYSTEMS, BUT THEY
12 WORK IN ESSENTIALLY THE SAME WAY.

13 MR. ANDERSON: FINE. THEN I WOULD LIKE TO OFFER IN
14 EVIDENCE, WHICH I FAILED TO DO YESTERDAY, THE EXHIBITS USED
15 DURING DR. RIBBENS DIRECT TESTIMONY:

16 EXHIBIT 101, HIS CURRICULUM VITAE, AND 102 THROUGH 114,
17 HIS TUTORIAL CHARTS. 116 AND 117, WHICH WERE THE BLOCK DIAGRAMS
18 OF THE 2600.

19 AND 119, A BLOCK DIAGRAM OF THE TIA. AND THEN 118A
20 THROUGH E, WHICH WERE THE ONE THROUGH FIVE DRAWINGS OF THE TIA
21 IN CHART FORM. AND THOSE WERE 192A AND 193-197 IN THE ACTUAL
22 DOCUMENTS THAT ARE IN THE BOOKS.

23 IN ADDITION TO THAT, I WOULD OFFER 124, WHICH IS THE
24 ACTUAL 6507 MICROPROCESSOR CHIP, WHICH OTHER CHIPS HAVE BEEN PUT
25 IN EVIDENCE. I WOULD LIKE TO HAVE THAT ONE IN ALSO.

1 FOR SKYJINKS 177, 178 AND 224. FOR ENDURO 188, 168 AND 226.
2 AND FOR DECATHLON 213, 214 AND 227.

3 IN ADDITION TO THAT, YOUR HONOR, WE WOULD LIKE TO OFFER
4 THE DEPOSITIONS OF THE GAME DESIGNERS, WHICH HAVE BEEN
5 IDENTIFIED. ALL OF THIS HAS BEEN IDENTIFIED IN OUR PRETRIAL
6 REPORT.

7 THE DEPOSITIONS ARE THE DEPOSITION OF ALLEN RICHARD
8 MILLER 266. ROBERT ALLEN WHITEHEAD 267. MR. HUBBARD 268.
9 STEVEN CARTWRIGHT 269. GARY EDWARD KITCHEN 270. DAVID PATRICK
10 CRANE 271. AND 154 THE NOTICE OF THEIR DEPOSITIONS.

11 IN ADDITION TO THAT, THE ATARI VCS 2600 DESCRIPTIVE
12 MATERIAL, ALL OF WHICH IS IN ORDER AND I THINK IS UNDISPUTED, IS
13 EXHIBIT 124, 127, 185 TO 190 AND 192 TO 204.

14 AND THEN WE TOOK DEPOSITIONS JUST TO FIND OUT HOW THE
15 ATARI 2600 WORKS. I WOULD LIKE TO OFFER THOSE. THEY ARE 272,
16 3086 OF ATARI, INC. 272 A 3086 OF COLECO, INC. AND 274, A
17 DEPOSITION OF JESSIE CABLE, III, ONE OF THE PEOPLE INVOLVED IN
18 THE DESIGNS. I WOULD LIKE TO OFFER ALL OF THOSE.

19 THE COURT: YOU REFER TO DEPOSITIONS. I HAVEN'T SEEN
20 TRANSCRIPTS. ARE THEY A PART OF THE DOCUMENT FILES YOU HAVE
21 GIVEN TO ME?

22 MR. ANDERSON: THE DESIGNATED PORTIONS OF ALL OF THEM
23 ARE IN THE BOOKS.

24 THE COURT: UNDER THOSE NUMBERS?

25 MR. ANDERSON: UNDER THOSE NUMBERS THAT I JUST READ

1 INTO THE RECORD, YES, YOUR HONOR.

2 THE COURT: DO DEFENDANTS HAVE ANY COMMENTS ON THE
3 PLAINTIFFS OFFER?

4 MR. GLICK: YES, YOUR HONOR. BY AND LARGE THERE WILL
5 BE NO OBJECTION TO MOST OF THE MATERIALS. I WOULD ASK AT AN
6 APPROPRIATE BREAK WE GET A LIST SO WE CAN SEE PRECISELY WHICH
7 NUMBERS ARE BEING OFFERED. THERE IS ONE DEPOSITION I BELIEVE WE
8 WILL HAVE SOME COMMENT ABOUT IT ONCE I SEE THAT.

9 THE COURT: I AM GOING TO DO THAT. I WILL ADMIT THE
10 EVIDENCE, SUBJECT TO A MOTION TO STRIKE, AND ASK MR. ANDERSON TO
11 GIVE YOU THAT LIST HE HAS BEEN READING FROM HERE AT THE PODIUM
12 SO YOU CAN LOOK IT OVER.

13 IF YOU HAVE OBJECTIONS TO SPECIFIC PIECES OF EVIDENCE,
14 THEN RAISE YOUR OBJECTIONS WHEN THERE IS AN OPPORTUNITY TO DO SO
15 AND I WILL RULE ON THEM AT THAT TIME.

16 MR. GLICK: THAT'S FINE. AS TO THE HARDWARE MANUAL AND
17 THE ACTUAL PROGRAM LISTINGS OF THE GAMES WHICH HAVE BEEN
18 OFFERED, THOSE WERE PROVIDED UNDER THE CONFIDENTIAL ORDER AND
19 THOSE NEED TO REMAIN SEALED.

20 THE COURT: HOW DO I KNOW THAT THOSE ARE SEALED? ARE
21 MY COPIES MARKED SEALED?

22 MR. GLICK: THEY SHOULD BE IF THEY WERE XEROXED FROM
23 THE ORIGINALS WHICH HAD THE STAMP ON THEM.

24 THE COURT: WHAT ABOUT THE ORIGINALS THAT WILL BE?
25 HERE. THEY WILL BE APPROPRIATELY MARKED AS SEALED?

1 MR. ANDERSON: I THINK THEY ARE ALL MARKED. THERE ARE
2 OTHERS BESIDES THE ONES THAT MR. GLICK HAS MENTIONED, SOME ATARI
3 ONES, TOO.

4 MR. GLICK: WE WILL PROVIDE TO THE COURT REPORTER THE
5 LISTING OF WHICH ONES ARE SEALED SO THAT CAN BE A PART OF THE
6 RECORD.

7 THE COURT: ALL RIGHT. MR. ANDERSON AND MR. GLICK WHEN
8 YOU HAVE GONE OVER THAT LISTING AND HAVE AGREED UPON THE ONES
9 THAT SHOULD BE ADMITTED INTO EVIDENCE AND I HAVE RULED ON THE
10 OTHERS, BE SURE THAT MS. JUNE AND MS. LINTHROP GET THOSE LISTS
11 SO THE DOCUMENT EXHIBIT REGISTER IS MAINTAINED.

12 MR. GLICK: THANK YOU.

13 MR. ANDERSON: I WILL HAND THEM TO YOU.

14 THE COURT: MR. ESCHER, ARE YOU PREPARED TO RESUME WITH
15 DR. RIBBENS?

16 MR. ESCHER: YES. JUST ONE MOMENT.

17 THE COURT: DR. RIBBENS, WOULD YOU LIKE TO TAKE THE
18 STAND AGAIN, PLEASE. PLEASE RECALL THAT YOU ARE UNDER OATH.

19 CROSS-EXAMINATION (RESUMED)

20 BY MR. ESCHER:

21 Q. GOOD MORNING, DR. RIBBENS.

22 A. GOOD MORNING.

23 Q. DR. RIBBENS, WOULD YOU AGREE THAT COMPUTER SOFTWARE IS A
24 PROGRAM FOR A COMPUTER?

25 A. IT IS GENERALLY WHAT IS MEANT BY THE TERM.

1 Q. WOULD YOU ALSO AGREE THAT A COMPUTER PROGRAM IS A SERIES OF
2 INSTRUCTIONS TO THE COMPUTER?

3 A. THAT'S TRUE.

4 Q. ISN'T IT TRUE THAT THE ACCUSED CARTRIDGES MANUFACTURED BY
5 ACTIVISION CONTAIN SOFTWARE?

6 A. AS FAR AS I KNOW, THOSE CARTRIDGES ARE READ ONLY MEMORIES
7 AND THEY WOULD HAVE INFORMATION IN THEM WHICH WOULD BE A PROGRAM
8 AND DATA.

9 Q. SO YOU WOULD AGREE THAT IT IS SOFTWARE?

10 A. IT IS OF THE FORM OF SOFTWARE, INSTRUCTIONS FOR THE
11 MICRO-PROCESSOR, YES.

12 THE COURT: MAYBE YOU BETTER PAUSE FOR A MOMENT AND
13 EXPLAIN TO ME A LITTLE BIT MORE ABOUT THE DIFFERENCE BETWEEN ROM
14 AND RAM, READ ONLY MEMORY AND RANDOM ACCESS MEMORY. YOU HAVE
15 REFERRED TO BOTH IN YOUR TESTIMONY. I THINK I UNDERSTAND THE
16 DIFFERENCE, BUT I AM NOT REALLY SURE.

17 THE WITNESS: IT IS VERY NATURAL TO HAVE SOME CONFUSION
18 BECAUSE THE TERM A READ ONLY MEMORY ACTUALLY HAS RANDOM ACCESS
19 IN THE SAME WAY A RAM DOES.

20 THE BETTER TERMINOLOGY FOR RANDOM ACCESS MEMORY IS A
21 READ/WRITE MEMORY. IT IS CAPABLE OF HAVING DATA ENTERED BY THE
22 SYSTEM OR OBTAINED FROM THE MEMORY BY THE SYSTEM, WHEREAS THE
23 READ ONLY MEMORY HAS DATA PERMANENTLY STORED AND CAN ONLY BE
24 INTERROGATED.

25 SO I THINK THE COMMON TERM NOW--THEY STILL USING RAM--

1 BUT I THINK A REFERRED TERM WOULD BE READ/WRITE MEMORY.

2 THE COURT: YOU USED THE TERM RAM IN CONNECTION WITH
3 SOME OF THE CIRCUITRY INVOLVED IN YOUR TESTIMONY.

4 THE WITNESS: THAT'S CORRECT. A RAM IS A MEMORY WHICH
5 CAN BE USED IN EITHER DIRECTION BY THE MICROPROCESSOR OR BY A
6 COMPUTER TO ENTER DATA AS WELL AS TO RETRIEVE THE DATA FROM IT.

7 SO IT IS VERY OFTEN USED AS A TEMPORARY STORAGE MEDIUM.
8 ONE COMMON USE IN A COMPUTER, FOR EXAMPLE, IS TO USE IT AS A
9 STACK FOR STORING PROGRAM COUNTER NUMBERS TO INTERRUPT THE MAIN
10 FLOW OF THE PROGRAM TO GO OFF ON A SUB-ROUTINE, OR SOMETHING
11 LIKE THAT THERE.

12 THERE ARE A NUMBER OF TEMPORARY DATA STORAGE MEDIUMS
13 AND INTERMEDIATE RESULTS CAN BE STORED IN THE RAM. THE REASON
14 FOR THE CONFUSION I THINK IS THAT RAM IS SORT OF A MISAPPLIED
15 TERM. A BETTER TERM WOULD BE READ/WRITE.

16 THE COURT: THANK YOU.

17 Q. (BY MR. ESCHER) NOW, THE ATARI 2600 VIDEO COMPUTER SYSTEMS
18 USES ACTIVISION SOFTWARE, CORRECT?

19 A. THAT'S CORRECT.

20 Q. AND THE ACTIVISION SOFTWARE IS THE STORED PROGRAM FOR THE
21 ATARI 2600 VCS CORRECT?

22 A. FOR EACH GAME, YES, THAT'S CORRECT.

23 Q. NOW, THERE IS A MICROPROCESSOR IN THE ATARI 2600, RIGHT?

24 A. CERTAINLY THAT IS PART.

25 Q. THE MICRO-PROCESSOR IN THE ATARI 2600 IS CONNECTED TO OTHER

1 ELECTRONIC CIRCUITRY IN THE 2600 AS YOU DESCRIBED IT YESTERDAY?

2 A. THAT'S TRUE. IT MUST BE BECAUSE A MICROPROCESSOR BY ITSELF
3 IS USELESS.

4 Q. ANY PARTICULAR INTEGRATED CIRCUIT IN THE ATARI 2600 WOULD BE
5 USELESS WITHOUT CONNECTION TO THE OTHERS; IS THAT RIGHT?

6 A. THAT'S CORRECT. WELL, NO, THAT IS NOT TRUE. THERE IS A 555
7 TIMER WHICH CAN BE USED--IT DOESN'T NEED PERIPHERALS OTHER THAN
8 CIRCUITS ELEMENTS.

9 Q. ACCORDINGLY, THE ATARI 2600 VIDEO COMPUTER SYSTEM WITH
10 SOFTWARE, WHETHER MANUFACTURED BY ATARI OR BY ACTIVISION,
11 CONSTITUTES A STORED PROGRAM DIGITAL COMPUTER; ISN'T THAT RIGHT?

12 A. WELL, THERE IS A LOT OF BANTERING ABOUT ABOUT WHAT A
13 COMPUTER AMOUNTS TO. I WOULDN'T AGREE THAT IT IS A COMPUTER,
14 NO.

15 Q. SO YOUR TESTIMONY IS THAT IT IS NOT A STORED PROGRAM DIGITAL
16 COMPUTER?

17 A. I WOULDN'T CONSIDER IT A DIGITAL COMPUTER. I CONSIDER IT A
18 SPECIAL PURPOSE DIGITAL SYSTEM.

19 Q. YOU WOULD AGREE THAT IT IS A STORED PROGRAM SYSTEM?

20 A. THERE ARE MANY STORED PROGRAM ELECTRONIC SYSTEMS. I WORK
21 WITH THEM MYSELF ALL THE TIME. I GUESS I WOULD NOT USE THE TERM
22 COMPUTER.

23 ALL THOUGH I AM NOT SURE IT IS TERRIBLY IMPORTANCE IN
24 THIS DISPUTE. MAYBE IT IS. PERHAPS YOU DISAGREE WITH ME.

25 Q. DR. RIBBENS, HAVE YOU REVIEWED THE ACTUAL PROGRAM LISTINGS

1 FOR ANY OF THE ACTIVISION SOFTWARE?

2 A. I HAVE READ THEM, YES.

3 THE COURT: WHAT IS A PROGRAM LISTING? IS THAT A
4 PRINTOUT OF THE INSTRUCTIONS?

5 MR. ESCHER: THAT'S CORRECT, YOUR HONOR. I HAVE GOT AN
6 EXAMPLE OF ONE RIGHT HERE.

7 THE COURT: I SEE WHAT YOU GOT. I WANT TO BE SURE I
8 UNDERSTAND WHAT YOU ARE TALKING ABOUT.

9 Q. (BY MR. ESCHER) DR. RIBBENS, I WOULD LIKE YOU TO TAKE A
10 LOOK AT THE DOCUMENT WHICH HAS BEEN MARKED AS DEFENDANT'S
11 EXHIBIT HE, WHICH HAS ALSO BEEN MARKED AS PLAINTIFFS' EXHIBIT
12 241.

13 A. I DON'T HAVE A COPY OF IT.

14 MR. ESCHER: THIS PORTION OF THE RECORD IS
15 CONFIDENTIAL.

16 THE COURT: FROM HERE UNTIL FURTHER NOTICE, WOULD YOU
17 PLEASE SEAL THE RECORD.

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1 MR. ANDERSON: DID YOU SAY 241?

2 MR. ESCHER: THAT'S RIGHT.

3 THE WITNESS: THE DECATHLON LISTING?

4 MR. ESCHER: I AM SORRY. 214.

5 Q. (BY MR. ESCHER) THIS IS A COMPUTER PRINTOUT OF THE PROGRAM
6 FOR THE ACTIVISION DECATHLON, RIGHT?

7 A. THAT'S WHAT IT APPEARS TO BE. THAT IS THE WAY IT IS LABELED
8 AT THE TOP OF MY COPY. IT IS MY UNDERSTANDING THAT THIS IS A
9 SOURCE CODE LISTING FOR DECATHLON.

10 Q. HAVE YOU REVIEWED THE SOURCE CODE LISTING FOR DECATHLON
11 PRIOR TO TODAY?

12 A. I HAVE LOOKED AT IT, YES.

13 Q. ISN'T IT TRUE THAT THE COMPUTER PROGRAM DETERMINES THE
14 CONTENT OF THE READ ONLY MEMORY CONTAINED IN THE ACTIVISION
15 CARTRIDGES?

16 A. GENERALLY THAT'S TRUE, YES.

17 Q. DR. RIBBENS, ARE YOU ABLE TO POINT OUT WITHOUT THE AID OF
18 YOUR NOTES WHERE ON THE COMPUTER PROGRAM FOR THE ACTIVISION
19 DECATHLON ARE THE MEANS FOR GENERATING HIT AND HITTING SYMBOLS?

20 A. NOT REALLY WITHOUT LOOKING AT MY NOTES. THERE ARE A NUMBER
21 OF THINGS. I SEE ON THE FIRST PAGE HERE THE IDENTIFICATION OF A
22 MEMORY LOCATION FOR THE PLAYER ZERO GRAPHICS. THAT'S LINE 37.
23 THAT IS CERTAINLY USED AS BEARING PART OF THE GENERATION OF THE
24 PLAYER ZERO SYMBOL.

25 IN FACT, WHEN THE PLAYER ZERO SYMBOL IS TO BE OUTPUTED

1 TO THE SCREEN, THERE WILL BE GRAPHICS DATA LOADED INTO THAT
2 MEMORY LOCATION.

3 Q. COULD YOU READ LINE 37 FOR US, PLEASE?

4 A. IT IS SIMPLY AN IDENTIFICATION. GIVES THE SYMBOLIC NAME FOR
5 THE MEMORY LOCATION OF 1-B. AND ASSOCIATED WITH THAT IS 1-C
6 NEXT TO IT, WHICH IS THE STORAGE FOR THE GRAPHICS REGISTER FOR
7 THE PLAYER ONE SYMBOL.

8 I COULD ALSO POINT OUT WHERE THAT OCCURS ON THE
9 SCHEMATIC DIAGRAM IF YOU LIKE. I COULD SHOW YOU WHERE THE
10 ACTUAL MEMORY LOCATION IS ON THE TIA CHIP.

11 Q. IT IS IN THE TIA CHIP?

12 A. THAT'S RIGHT.

13 Q. THE TIA CHIP IS THE VIDEO INTERFACE CHIP WHICH IS IN THE
14 ATARI 2600, IS THAT CORRECT?

15 A. CORRECT.

16 Q. IT IS NOT MANUFACTURED BY ACTIVISION, IS IT?

17 A. NOT TO MY KNOWLEDGE IT IS NOT.

18 Q. DR. RIBBENS, COULD YOU POINT OUT WHERE IN THE ACTIVISION
19 DECATHLON PROGRAM ARE THE MEANS FOR ASCERTAINING COINCIDENCE?

20 A. NOT WITHOUT LOOKING AT MY NOTES.

21 Q. AND FOR IMPARTING DISTINCT MOTION, WOULD YOUR ANSWER BE THE
22 SAME?

23 A. OH, YEAH. I DON'T KNOW HOW MANY THOUSAND LINES THERE ARE
24 HERE. I HAVE LOOKED AT SEVERAL COMPUTER PROGRAMS. I CAN'T
25 SIMPLY REMEMBER WHERE IT IS.

1 EVEN IF I HAD WRITTEN IT, I DON'T THINK I COULD
2 REMEMBER WHERE IT WAS.

3 Q. TURNING NOW TO YOUR NOTES FOR THE DECATHLON GAME, WHICH YOU
4 KINDLY MADE AVAILABLE TO US YESTERDAY, TURN TO THE FIRST PAGE OF
5 THOSE NOTES WHERE IT SAYS DECATHLON GAME.

6 A. RIGHT.

7 Q. TOWARD THE BOTTOM OF THOSE NOTES IT SAYS "IMPART DISTINCT
8 MOTION." DO YOU SEE THAT?

9 A. I DO.

10 Q. IS THAT YOUR NOTATION OF WHERE ON THE PROGRAM LISTING THE
11 DISTINCT MOTION FUNCTION IS ACCOMPLISHED?

12 A. YES. I BELIEVE THIS IS WHERE A VARIABLE LABELED SPEED IS
13 CHANGED, RIGHT.

14 MR. ANDERSON: EXCUSE ME, YOUR HONOR. I HAVE MADE SOME
15 COPIES OF NOTES. IF THE COURT WOULD LIKE TO HAVE THEM, I COULD
16 HAND THEM UP.

17 THE COURT: IF THERE IS GOING TO BE A LOT OF
18 QUESTIONING ABOUT IT.

19 MR. ESCHER: THERE ISN'T GOING TO BE A LOT OF
20 QUESTIONING. BUT I THINK IT IS APPROPRIATE IF WE DO HAND IT UP.

21 MR. ANDERSON: IT IS REASONABLY COMPLETE. I NOTICE ON
22 DECATHLON THERE WAS A HEADING OF DECATHLON ACROSS THE TOP OF THE
23 FIRST PAGE WHICH DISAPPEARED IN THE COPYING. HERE ARE ALL OF
24 THE NOTES, AS FAR AS I KNOW, THAT WERE HANDED TO MR. ESCHER
25 YESTERDAY.

1 MR. ESCHER: DID YOU JUST TURN IN THE NOTES FOR
2 DECATHLON OR ALL OF THE NOTES?

3 MR. ANDERSON: I TURNED IN EVERYTHING THAT I HAD, I
4 THINK YOU HAD, ALTHOUGH THEY GOT A LITTLE JUMBLED UP IN THE
5 PROCESS.

6 MR. ESCHER: I DIDN'T TOUCH THEM MYSELF. LET'S HAVE
7 THOSE NOTES MARKED AS DEFENDANT'S EXHIBIT IB, PLEASE.

8 THE COURT: WOULD YOU GET A STICKER FOR THE EXHIBITS,
9 PLEASE.

10 MR. ESCHER: I HAVE GOT ONE.

11 THE COURT: THANK YOU. ARE THESE UNDER SEAL?

12 MR. ESCHER: YES, THEY ARE.

13 (DEFENDENT'S EXHIBIT IB MARKED
14 FOR IDENTIFICATION)

15 Q. (BY MR. ESCHER) DR. RIBBENS, COULD YOU READ FROM THE FIRST
16 PAGE OF EXHIBIT IB?

17 A. WHICH IS EXHIBIT IB? THAT IS MY NOTES?

18 Q. THOSE ARE YOUR NOTES. WHERE EXACTLY YOU FOUND THE DISTINCT
19 MOTION FUNCTION IN THE ACTIVISION DECATHLON GAME.

20 A. WELL, THIS IS ONLY A PORTION PERHAPS. I WAS--I HAVE GOT AT
21 LINE 1353 THERE IS A LOAD ACCUMULATOR WITH THE NUMBER HEX 20.

22 AND THE NEXT LINE THERE IS A COMPARISON WITH MEMORY
23 LOCATION CALLED SPEED. THE NEXT LINE IF THE CARRIER IS SET IT
24 BRANCHES NOBLP. AND IF THE CARRIER IS CLEARED, THEN IT STORES
25 THE NUMBER 20 IN THE LOCATION SPEED.

1 Q. THAT IS AN EXAMPLE OF THE DISTINCT MOTION FUNCTION IN THE
2 ACTIVISION DECATHLON GAME?

3 A. THAT IS A PORTION OF IT. THE ACTUAL IMPARTING OF DISTINCT
4 MOTION WOULD USE THAT VARIABLE. I WASN'T INTENDING TO INDICATE
5 THAT WAS THE ONLY PORTION IN THE SOURCE OF THAT THAT IS
6 AFFECTING THE MOTION.

7 Q. BUT THAT IS AN EXAMPLE OF A PORTION OF THE PROGRAM WHICH
8 AFFECTS MOTION, CORRECT?

9 A. YES, THAT'S CORRECT. BY THE WAY, THAT WAS--THAT SECTION OF
10 CODE WAS--I HELPED FIND THAT BY READING THE DEPOSITION FROM, I
11 BELIEVE IT IS, MR. CRANE. SO THAT IS WHAT MR. CRANE HAD
12 SUGGESTED WHEN EXAMINED.

13 Q. DR. RIBBENS, LET'S TURN NOW TO THE PHOTO MICROGRAPH OF THE
14 ACTIVISION DECATHLON READ ONLY MEMORY CHIP, WHICH HAS BEEN
15 MARKED AS EXHIBIT GW.

16 A. THAT'S UP HERE?

17 Q. RIGHT HERE (INDICATING).

18 THE COURT: THE NUMBER OF DR. RIBBENS NOTES IS WHAT?

19 MR. ESCHER: IB, YOUR HONOR.

20 THE COURT: ARE THESE THE ORIGINALS?

21 MR. ESCHER: NO.

22 MR. ANDERSON: OF DR. RIBBENS NOTES? NO. WE WILL MARK
23 THE ORIGINALS, THOUGH, AS THE EXHIBITS.

24 Q. (BY MR. ESCHER) DR. RIBBENS, CAN YOU LOCATE WHERE ON THE
25 ACTIVISION READ ONLY MEMORY CHIP FOR THE ACTIVISION DECATHLON

1 ARE LOCATED THE MEANS FOR GENERATING THE HIT AND HITTING
2 SYMBOLS?

3 A. YOU MEAN THE PARTICULAR GEOMETRIC PORTION OF THAT, IS THAT
4 WHAT YOU ARE ASKING ME?

5 Q. YES.

6 A. NO, I COULDN'T POSSIBLY DO THAT.

7 Q. COULD YOU POINT OUT WHERE ON THE ACTIVISION READ ONLY MEMORY
8 CHIP ARE LOCATED THE MEANS FOR ASCERTAINING COINCIDENCE?

9 A. I DOUBT THAT ANYONE COULD DO IT UNLESS YOU KNEW WHAT THE
10 EXACT STRUCTURE WAS AND STARTED COUNTING CELL LOCATIONS AND HAD
11 CORRESPONDING MEMORY LOCATIONS FROM THE SOURCE LIST.

12 Q. WHAT ABOUT THE MEANS FOR IMPARTING A DISTINCT MOTION, CAN
13 YOU TELL WHERE ON THE READ ONLY MEMORY CHIP THOSE MEANS ARE
14 LOCATED?

15 MR. ANDERSON: THAT IS THE PHOTOGRAPH OF THE ACTUAL
16 CHIP MAGNIFIED A THOUSAND TIMES OR SO.

17 MR. ESCHER: THAT IS CORRECT.

18 THE WITNESS: I'M SURE IT IS. BUT, NO, I COULDN'T.
19 NO.

20 Q. (BY MR. ESCHER) DR. RIBBENS, YOU HAVE TESTIFIED TWICE
21 BEFORE ON BEHALF OF THE PLAINTIFFS IN THIS CASE; IS THAT
22 CORRECT?

23 A. THAT'S CORRECT.

24 Q. AND ON EACH OCCASION YOU TESTIFIED THAT IN YOUR EXPERT
25 OPINION THE RUSCH PATENT WAS LITERALLY INFRINGED BY THE VIDEO

1 GAMES MANUFACTURED BY THE DEFENDANTS IN THOSE CASES, IS THAT
2 RIGHT?

3 A. WAS THAT MY TESTIMONY? I'M NOT SURE. I'M NOT REALLY A
4 PATENT LAWYER. I KNOW I TESTIFIED TO THE EXTENT THAT I READ THE
5 CLAIMS AGAINST THE ACCUSED GAMES. IF THAT CONSTITUTES LITERAL
6 INFRINGEMENT, THEN I GUESS THE ANSWER IS YES.

7 Q. NOW, YOU HAD EXAMINED THE ELECTRONIC CIRCUITRY OF THE
8 ACCUSED VIDEO GAME MACHINES IN BOTH THE CDI CASE AND THE MATTEL
9 CASE, RIGHT?

10 A. I DID EXAMINE THEM, YES.

11 Q. THAT CIRCUITRY WAS NOT IDENTICAL TO THE ELECTRONIC CIRCUITRY
12 SET OUT IN THE SPECIFICATIONS OF THE RUSCH PATENT, WAS IT?

13 A. THE CIRCUITRY DIFFERS, OF COURSE.

14 Q. AND IT WAS YOUR TESTIMONY IN THE CDI AND MATTEL CASES THAT
15 THE RUSCH PATENT WAS LITERALLY INFRINGED IN THOSE CASES BASED ON
16 YOUR UNDERSTANDING OF THE SCOPE OF THE RUSH PATENT; IS THAT
17 CORRECT?

18 MR. ANDERSON: I OBJECT, YOUR HONOR. THE WITNESS HAS
19 ALREADY SAID HE DOESN'T KNOW THAT HE TESTIFIED THAT THERE WAS
20 LITERAL INFRINGEMENT. HE TESTIFIED THAT ALL HE DID WAS
21 RELATE---

22 THE COURT: IT IS CROSS-EXAMINATION. HE IS ENTITLED TO
23 JOSTLE HIS MEMORY AS HE SEES FIT.

24 MR. ANDERSON: I OBJECT TO THE PREMISE, YOUR HONOR.

25 THE COURT: I AM GOING TO OVERRULE THE OBJECTION. I

1 THINK IT IS VALID CROSS-EXAMINATION.

2 THE WITNESS: I CAN ONCE AGAIN STATE THAT I READ THE
3 CLAIMS AGAINST THE ACCUSED GAMES.

4 Q. (BY MR. ESCHER) DR. RIBBENS, I REALIZE THAT YOU ARE NOT AN
5 EXPERT IN PATENT LAW. HAVE YOU RELIED ON THE ADVICE OF COUNSEL
6 FOR MAGNAVOX AND SANDERS WITH RESPECT TO THE DEFINITION OF A
7 MEANS PLUS FUNCTION PATENT CLAIM?

8 A. THEY HAVE EXPLAINED IT TO ME.

9 Q. NOW, I BELIEVE MR. BAER INDICATED EARLIER IN HIS TESTIMONY
10 THAT HE WAS DISSATISFIED TO SOME DEGREE WITH THE CIRCUITRY IN
11 THE RUSCH PATENT, SPECIFICALLY THE SAWTOOTH WAVE GENERATOR,
12 SLICER CIRCUIT SPOT GENERATORS.

13 DO YOU AGREE WITH MR. BAER THAT THE RUSCH PATENT
14 CIRCUITRY HAD A PROBLEM WITH RESPECT TO STABILITY?

15 A. I WASN'T PART OF THE TEAM THAT EXAMINED THOSE CIRCUITS. I
16 COULDN'T ANSWER THAT QUESTION. BUT I AM NOT SURE THAT IT
17 WOULDN'T. SLICER CIRCUIT IS ONE WAY TO ACHIEVE A TIME DELAY.
18 IT IS NOT THE WAY I WOULD CHOOSE TO DO IT, BUT THAT'S THE WAY
19 MR. RUSCH CHOSE TO DO IT.

20 Q. HAVE YOU EVER SEEN GENERATION OF SPOTS ON A TELEVISION
21 SCREEN BY A DEVICE EMBODYING THE CIRCUITRY DISCLOSED IN THE
22 RUSCH PATENT?

23 A. HAVE I EVER? WELL, IT SEEMS TO ME THAT THE DEMONSTRATION
24 THAT MR. BAER GAVE OF THE CIRCUITRY THAT WAS DEVELOPED AT THAT
25 TIME DEMONSTRATES THAT. OTHER THAN THAT, I HAVEN'T SEEN ANY

1 THAT I CAN RECALL.

2 Q. NOW, WITH RESPECT---

3 A. WELL, EXCEPT FOR THE FACT THAT THERE ARE MANY GAMES THAT
4 HAVE BEEN INVOLVED. BUT IN TERMS OF--IN FACT, I DON'T KNOW THAT
5 THE BOX THAT MR. BAER DEMONSTRATED USED THE SLICER CIRCUIT. I
6 DON'T BELIEVE IT ACTUALLY USED THE SLICER CIRCUIT, IF THAT WAS
7 THE QUESTION YOU WERE ASKING ME.

8 Q. HAVE YOU EXAMINED AND REVIEWED THE VARIOUS MODELS OF THE
9 ODYSSEY MASTER CONSOLES INTRODUCED DURING MR. BAER'S TESTIMONY?

10 A. YEARS AGO.

11 Q. WITH RESPECT TO THE EARLIEST MODEL ODYSSEY GAME, WHICH I
12 BELIEVE IS THE ITL 200 WHICH WE SAW LAST WEEK, THE CIRCUITRY IN
13 THAT GAME DOES NOT EMPLOY SAWTOOTH WAVE GENERATORS AND SLICER
14 CIRCUITS, DOES IT?

15 A. TO BE QUITE FRANK, I DON'T REMEMBER WHAT THE CIRCUITRY
16 CONTAINS.

17 Q. ISN'T IT TRUE THAT THE CIRCUITRY IN THE EARLY ODYSSEY GAMES
18 MORE CLOSELY RESEMBLES THE CIRCUITRY IN THE BRH 3 OR 598 PATENT?

19 A. I REALLY COULDN'T ANSWER THAT QUESTION. I DON'T KNOW WHAT
20 THE CIRCUITRY IS.

21 Q. SO YOU HAVEN'T EXAMINED THE CIRCUITRY IN THE EARLY ODYSSEY
22 GAMES?

23 A. YEARS AGO. I DON'T REMEMBER. I HAVEN'T LOOKED AT IT WITH
24 RESPECT TO THIS DISCUSSION. IT WAS MY UNDERSTANDING THAT THE
25 PATENT IN SUIT WAS THE 507 PATENT.

1 Q. NOW, THE SUBSEQUENT VIDEO GAMES SOLD BY MAGNAVOX UNDER THE
2 ODYSSEY LABEL HAD SOMEWHAT DIFFERENT CIRCUITRY THAN THE VERY
3 FIRST ODYSSEY GAME; ISN'T THAT RIGHT?

4 (CONTINUED ON NEXT PAGE)
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1 A. MY ONLY KNOWLEDGE OF THAT IS WHAT MR. BAER TESTIFIED. HE
2 DID TESTIFY THAT THERE WAS AN EVOLUTION IN THE CIRCUIT
3 TECHNOLOGY. ONCE AGAIN, THOSE ARE SPECIFIC CIRCUITS FOR
4 ACCOMPLISHING THE TASK.

5 Q. YOU RECALL MR. BAER'S TESTIMONY AS SOME POINT MAGNAVOX
6 INTRODUCED--- -

7 THE COURT: PARDON ME A MOMENT.

8 ARE WE STILL UNDER SEAL?

9 MR. ESCHER: WE ARE NOT NOW.

10 THE REPORTER: YOU DIDN'T NOTIFY ME WHEN WE WENT OUT
11 FROM UNDER SEAL.

12 MR. ESCHER: I FORGOT TO.

13 THE COURT: IT IS NOTED IT IS NO LONGER UNDER SEAL.

14 Q. (BY MR. ESCHER) DO YOU RECALL MR. BAER'S TESTIMONY THAT AT
15 SOME POINT MAGNAVOX INTRODUCED A MICROPROCESSOR BASED VIDEO
16 SYSTEM KNOWN AS THE ODYSSEY OR ODYSSEY 2?

17 A. I REMEMBER HEARING HIM SAY THAT, YES.

18 Q. YOU HAVE EXAMINED THE ODYSSEY 2?

19 A. NOT FOR YEARS.

20 Q. YOU DO RECALL THAT THE ODYSSEY 2 USED MICROPROCESSORS AND
21 INTERCHANGABLE READ ONLY MEMORY CHIPS?

22 A. FROM MR. BAER'S TESTIMONY, I REMEMBER SOMETHING ABOUT THAT,
23 BUT I DON'T REMEMBER THE DETAILS. I DON'T EVEN KNOW WHICH MODEL
24 IS WHICH. I WASN'T PAYING THAT MUCH ATTENTION TO HIS TESTIMONY.

25 Q. BUT YOU DO RECALL THERE BEING A MICROPROCESSOR BASED GAME

1 MANUFACTURED BY THE MAGNAVOX?

2 A. I REMEMBER HIM SAYING THERE WAS ONE, YES.

3 Q. DO YOU RECALL WHETHER YOU EVER EVER SPECIFICALLY LOOKED AT
4 THE CIRCUITRY OF THAT DEVICE?

5 A. I LOOKED AT THE CIRCUITRY FOR ONE OF THE ODYSSEY GAMES, BUT
6 I HONESTLY DON'T REMEMBER WHICH ONE IT WAS. IT WAS OVER THREE
7 YEARS AGO. I DON'T REMEMBER. THERE DIDN'T SEEM TO BE AN ISSUE
8 THAT I NEEDED TO DEAL WITH FOR MY PREPARATION FOR THIS SUIT
9 HERE.

10 Q. IN THE ODYSSEY 2 MICROPROCESSOR DEVICE, IT COUNTS AND
11 PERFORMS NUMERICAL CALCULATIONS, DOES IT NOT?

12 A. I DON'T KNOW, REALLY. I HONESTLY DON'T KNOW.

13 Q. YOU DO KNOW THAT THE CIRCUITRY DESCRIBED IN THE RUSCH 2
14 PATENT DOES NOT PERFORM COUNTING OR NUMERICAL CALCULATIONS; IS
15 THAT RIGHT?

16 A. MAY I HAVE THE QUESTION BACK?

17 (RECORD READ)

18 THE WITNESS: YOU ARE REFERRING TO SOME SPECIFIC
19 CIRCUIT IN--WHAT IS IT CALLED--THE BODY OF THE PATENT, THE---

20 Q. PREFERRED EMBODIMENT IS THE NAME OF THE PORTION OF THE
21 PATENT.

22 A. THERE IS A SCHEMATIC SHOWN FOR A SLICER CIRCUIT AND A
23 SAWTOOTH WAIVEFORM AS ONE MEANS FOR GENERATING THE TIME DELAY,
24 THAT'S CORRECT.

25 Q. I AM NOT SURE YOU ANSWERED MY QUESTION. MY QUESTION WAS

1 WHETHER THE CIRCUITRY DESCRIBED IN THE RUSCH 2 PATENT
2 SPECIFICATION DOES NOT PERFORM COUNTING OR NUMERICAL
3 CALCULATIONS?

4 A. THERE IS NOTHING IN THE SPECIFICATION WHICH IS GIVEN, AS FAR
5 AS I KNOW, AS A PREFERRED EMBODIMENT THAT SHOWS COUNTING. I
6 THINK THAT MIGHT HAVE BEEN TOO EXPENSIVE FOR THEM AT THE TIME.

7 Q. THERE WEREN'T ANY NUMERICAL CALCULATIONS, EITHER, WERE
8 THERE?

9 A. DEPENDS ON ONES VIEWPOINT, BUT I WOULD SAY NO.

10 Q. THE RUSCH PATENT DOES NOT SPECIFICALLY REFER TO ANY COMPUTER
11 TECHNOLOGY OR COMPUTER PROGRAM, DOES IT?

12 A. IT DOESN'T MENTION THAT IN THOSE WORDS, NO.

13 Q. AND THE RUSCH DEVICE CONTAINED IN THE PATENT SPECIFICATIONS
14 ITSELF IS NOT A COMPUTER, IS IT?

15 A. WELL, NO. I THINK MR. BAER'S TESTIMONY MADE IT CLEAR THAT
16 THEY WERE ATTEMPTING TO BUILD AN INEXPENSIVE ELECTRONIC SYSTEM
17 THAT COULD BE USED WITH A TELEVISION RECEIVER. THERE WOULD BE
18 NO REASON FOR THEM TO CONSIDER COMPUTER TECHNOLOGY WHICH WAS
19 INORDINATELY EXPENSIVE AT THE TIME.

20 Q. SO THE ANSWER IS NO, IT WAS NOT A COMPUTER?

21 A. NOTHING IN THERE THAT WAS A COMPUTER. NOT A DIGITAL
22 COMPUTER, FOR SURE.

23 Q. DOCTOR RIBBENS, ISN'T IT TRUE THAT IN ORDER TO DISPLAY
24 ANYTHING COHERENT ON A HOME TELEVISION OR OTHER CATHODE RAY TUBE
25 DEVICE YOU MUST USE HORIZONTAL AND VERTICLE SYNCHRONIZATION

1 SIGNALS TO CONTROL THE RASTER?

2 A. THAT'S CORRECT.

3 Q. AND IT IS ALSO TRUE THAT HORIZONTAL AND VERTICLE
4 SYNCHRONIZATION SIGNALS ARE PRESENT IN BROADCAST TELEVISION
5 SIGNALS, CABLE TELEVISION SIGNALS, VIDEO CASSETTE RECORDER
6 SIGNALS, PERSONAL COMPUTER SIGNALS AND ALL OTHER SIGNALS FOR
7 RASTER SCAN DISPLAYS?

8 A. WELL, NO, I CAN'T AGREE WITH ALL THAT. THE FIRST THINGS YOU
9 MENTIONED CERTAINLY ARE TRUE. TO WORK WITH A TELEVISION
10 RECEIVER THE BROADCAST STATION CLEARLY TRANSMITS HORIZONTAL AND
11 VERTICLE SYCHRONIZING PULSES.

12 BUT I AM NOT SURE OF THE EXACT STRUCTURE OF WHEN YOU
13 SAY A HOME COMPUTER. THAT WOULD DEPEND ON THE SPECIFIC EXAMPLE
14 AND THE PERIOD IN TIME WHICH YOU ARE DISCUSSING. I WOULD HAVE
15 TO STUDY A SPECIFIC SCHEMATIC.

16 Q. YOU ARE NOT SURE WITH RESPECT TO PERSONAL COMPUTERS?

17 A. I MEAN THERE ARE SO MANY OF THEM. I DON'T WANT TO GIVE AN
18 ANSWER THAT IS WRONG.

19 I WOULD SAY IF IT USES A RASTER SCAN, THEN HORIZONTAL
20 AND VERTICLE SYCHRONIZING PULSES MUST BE PRESENT.

21 Q. LET ME TRY POSING THE QUESTION THIS WAY: IS IT TRUE THAT
22 HORIZONTAL AND VERTICLE SYNCHRONIZATION SIGNALS ARE PRESENT IN
23 BROADCAST TELEVISION SIGNALS, CABLE TELEVISION SIGNALS, VIDEO
24 CASSETTE RECORDER SIGNALS, PERSONAL COMPUTER SIGNALS WHERE THE
25 PERSONAL COMPUTER USES A RASTER SCAN DISPLAY, AND ALL OTHER

1 SIGNALS FOR RASTER SCAN DISPLAYS?

2 MR. ANDERSON: MAY I HAVE THE QUESTION AGAIN?

3 MR. ESCHER: READ THE QUESTION BACK.

4 (RECORD READ)

5 THE WITNESS: THE PREMISE FOR THE QUESTION SEEMS TO
6 INCLUDE EVERYTHING THAT I WOULD THINK OF AS A RASTER SCAN.
7 CERTAINLY BROADCAST TELEVISION. NO QUESTION ABOUT THAT. OR
8 CABLE TELEVISION. ABSOLUTELY NO QUESTION ABOUT THAT.

9 THERE WOULD BE NO WAY TO MAINTAIN THE STABILITY AND
10 COHERENCE OF THE PICTURE WITHOUT THOSE SYNCHRONIZING PULSES.
11 WHEN YOU SAY ALL OTHER RASTER SCAN DEVICES, AS FAR AS I KNOW,
12 THAT IS TRUE. THERE MAY BE SOME ASPECT OF THAT THAT I AM NOT
13 AWARE OF.

14 Q. (BY MR. ESCHER) DOCTOR RIBBENS, IS IT TRUE THAT MOVEMENT ON
15 THE SCREEN WITH ANY TELEVISION SIGNAL IS ACCOMPLISHED BY TIMING
16 DELAYS OF THE ELECTRON GUN IN RELATION TO THE HORIZONTAL AND
17 VERTICLE SYNC SIGNALS?

18 A. NO, NOT TIME DELAY OF ELECTRON GUN, NO.

19 Q. READING FROM YOUR TESTIMONY YESTERDAY AT PAGE 97 OF THE
20 TRANSCRIPT REGARDING THE ISSUE OF EQUIVILENCE OF THE MEANS FOR
21 IMPARTING DISTINCT MOTION, I WILL READ FROM YOUR TESTIMONY FOR A
22 MOMENT AND THEN POSE A QUESTION. THE QUESTION WAS:

23 "Q. WITH RESPECT TO THE MEANS FOR IMPARTING A DISTINCT
24 MOTION TO THE HIT SYMBOL UPON COINCIDENCE.

25 "A. I BELIEVE THAT IS ALSO EQUIVALENT BECAUSE THE

1 MOTION IS DETERMINED BY THE CHANGE IN THE TIME DELAY
2 FROM THE SYNCHRONIZING, BUT ALSO TO THE SIGNAL FROM EACH
3 PICTURE TO THE NEXT. SO IN EACH SUCCEEDING PICTURE
4 THAT TIME DELAY WOULD EITHER INCREASE OR DECREASE,
5 DEPENDING UPON WHETHER THE MOTION IS TO BE TO THE RIGHT
6 OR TO THE LEFT. AND SIMILARLY WITH RESPECT TO THE
7 VERTICLE SYNCHRONIZING PULSES."

8 DOCTOR RIBBENS, ISN'T IT TRUE THAT MOVEMENT OF A SPOT
9 ON A RASTERRASTER SCAN DISPLAY MUST NECESSARILY INVOLVE "THE
10 CHANGE" IN THE TIME DELAY FROM THE SYNCHRONIZING PULSE TO THE
11 SIGNAL FROM EACH PICTURE TO THE NEXT?

12 A. THAT IS TRUE.

13 Q. THAT WOULD INCLUDE TV BROADCASTS?

14 A. YES. IF YOU HAVE A SYMBOL THAT IS MOVING FROM A BROADCAST
15 TELEVISION RECEIVER AND IT WERE MOVING, THE PLACEMENT ON THE
16 SCREEN IS INCREASED OR DECREASED, DEPENDING UPON THE TIME DELAY
17 FROM THE HORIZONTAL AND VERTICLE SYNCHRONIZING PULSE. SO MOTION
18 WOULD BE A ACCOMPLISHED BY CAUSING THOSE SYMBOLS TO OCCUR AT AN
19 EARLIER OR LATER TIME IN RELATIONSHIP TO THOSE SYNCHRONIZING
20 PULSES, THAT'S CORRECT.

21 Q. I WOULD LIKE TO TURN FOR A MOMENT NOW TO EXHIBITS 107 AND
22 110, WHICH ARE CHARTS THAT YOU USED IN YOUR EXPLANATION EARLIER
23 THIS WEEK.

24 DOCTOR RIBBENS, ISN'T IT TRUE THAT BOTH EXHIBITS 107
25 AND 110 ARE CHARTS OF A COMPOSITE VIDEO SIGNAL?

1 A. THIS WAS OFFERED TO BE A SYMPLIFIED EXAMPLE OF A VIDEO
2 WAIVEFORM, A PORTION OF A VIDEO WAIVEFORM. IT IS NOT COMPLETE
3 IN EVERY RESPECT.

4 Q. IT WOULD BE A PORTION OF A COMPOSIT VIDEO WAIVEFORM; IS THAT
5 CORRECT?

6 A. IT WAS INTENDED TO BE A SYMPLIFIED VERSION OF A PORTION,
7 GREATLY SYMPLIFIED VERSION.

8 Q. ISN'T IT TRUE THAT COMPOSIT VIDEO SIGNALS OF THE SAME IMAGE
9 WOULD LOOK THE SAME NO MATTER WHAT TYPE OF TELEVISION SIGNAL WAS
10 USED TO GENERATE THE SIGNAL?

11 A. NO MATTER WHAT TYPE OF TELEVISION SIGNAL?

12 Q. THAT IS, A BROADCAST SIGNAL, CABLE SIGNAL, A VIDEO CASSETTE
13 RECORDER SIGNAL OR A VIDEO GAME SIGNAL?

14 A. NOW I UNDERSTAND. YES. IT DOESN'T MATTER WHAT THE SOURCE
15 IS. THE TELEVISION RECEIVER CAN'T TELL WHERE IT IS COMING FROM
16 IN TERMS OF DISPLAY.

17 Q. THE COMPOSITE VIDEO WAIVEFORM WASN'T SOMETHING INVENTED BY
18 MR. BAER OR MR. RUSCH, WAS IT?

19 A. CERTAINLY NOT.

20 Q. DOES THE ATARI 2600 VCS OR ACTIVISION SOFTWARE USE THE
21 FLIP-FLOP CIRCUITRY DESCRIBED IN THE DRAWINGS IN MR. RUSCH'S
22 PATENT TO ACCOMPLISH A REVERSAL OF VELOCITY?

23 A. WELL, IN A WAY, I THINK IT DOES. IF YOU LOOK AT THE
24 COLLISION REGISTERS, THEY ARE BISTABLE CIRCUITS. A BISTABLE
25 CIRCUIT IS A SPECIAL TYPE OF FLIP-FLOP. IT IS AN RS FLIP-FLOP.

1 OF USING THOSE TWO DEVICES. I BELIEVE THAT IS YOUR QUESTION.

2 LET ME STATE THE QUESTION I AM ATTEMPTING TO ANSWER. A
3 COMBINATION OF A SAWTOOTH WAIVE GENERATOR AND SLICER CIRCUIT.
4 YOU ARE ASKING ME IF THERE ARE OTHER COMBINATIONS OF THOSE.

5 OFFHAND I CAN'T THINK OF ANOTHER COMBINATION, BUT THAT
6 DOESN'T MEAN THERE AREN'T ANY.

7 IF YOU RECOGNIZE THAT THE SLICER CIRCUIT IS WORKING IN
8 CONJUNCTION WITH THE SAWTOOTH WAIVE TO GENERATE A TIME DELAY, I
9 CAN'T THINK OF A WAY OF PUTTING THEM TOGETHER THAT WOULDN'T GIVE
10 A TIME DELAY.

11 Q. ISN'T IT TRUE THAT THERE IS A WIDE VARIETY OF WAYS TO VARY
12 THE ELECTRONIC CIRCUITRY WHICH IS SET OUT IN THE RUSCH PATENT
13 SPECIFICATION?

14 A. I'M SORRY. I DON'T UNDERSTAND THE QUESTION.

15 WHAT DO YOU MEAN BY VARIED CIRCUITRY?

16 Q. I THINK YOU HAVE ACTUALLY ANSWERED THE QUESTION. I THINK IT
17 WAS AN UNNECESSARY QUESTION.

18 DOCTOR RIBBENS, ISN'T IT TRUE A COMPUTER PROGRAM CAN BE
19 STORED ON A MEDIUM OTHER THAN A READ ONLY MEMORY CHIP?

20 A. THAT IS TRUE.

21 Q. FOR EXAMPLE, A COMPUTER PROGRAM COULD BE STORED ON A FLOPPY
22 DISK, RIGHT?

23 A. THAT IS TRUE.

24 Q. OR A RIGID DISK, OR EVEN A PAPER TAPE?

25 A. THAT IS TRUE.

1 Q. IS IT ALSO TRUE THAT SUCH A COMPUTER PROGRAM ON A FLOPPY
2 DISK FOR A COMPUTER GAME WOULD DISPLAY EXACTLY THE SAME COMPOSIT
3 VIDEO SIGNAL AS A COMPUTER PROGRAM FOR THE SAME GAME ON A
4 CARTRIDGE?

5 A. I WOULD SAY IT DEPENDS ON THE STRUCTURE OF THE PROGRAM. IF
6 YOU TRANSFER THE EXACT OBJECT CODE TO ANOTHER MEDIUM, AS LONG AS
7 THE MEMORY LOCATIONS WERE STILL THE SAME, IT SHOULDN'T MATTER.
8 AS LONG AS THE INSTRUCTIONS APPEAR IN THE MICROPROCESSOR IN THE
9 CORRECT SEQUENCE AND HAVE THE SAME OBJECT CODE, THE SAME BINARY
10 MACHINE LANGUAGE CODE, IT SHOULD FUNCTION THE SAME WAY.

11 Q. SO WITH THOSE QUALIFICATIONS, IF YOU, FOR EXAMPLE, USED AN
12 OSCILLISCOPE TO MEASURE THE OUTPUT OF THE TWO DEVICES, IT WOULD
13 BE THE SAME?

14 A. WELL---

15 MR. ANDERSON: I OBJECT. I DON'T KNOW WHAT THE TWO
16 DEVICES ARE WE ARE TALKING ABOUT.

17 MR. ESCHER: I CAN CLARIFY THAT. NO PROBLEM.

18 Q. (BY MR. ESCHER) FOR EXAMPLE, THE COMPUTER PROGRAM FOR VIDEO
19 GAMES ON A FLOPPY DISK AS OPPOSED TO A COMPUTER PROGRAM FOR A
20 VIDEO GAME ON A READ ONLY MEMORY CARTRIDGE.

21 A. WELL---

22 MR. ANDERSON: I DON'T THINK THAT HELPS.

23 THE COURT: IT MAY NOT HELP. IT IS A PROPER QUESTION.
24 AS I UNDERSTAND THE QUESTION, IT IS WHETHER THEY ARE THE SAME
25 THINGS AS MEASURED BY AN OSCILLISCOPE.

1 MR. ESCHER: THAT IS A WELL-POSED QUESTION. THAT IS
2 EXACTLY WHAT I AM ASKING.

3 THE WITNESS: I THINK THE ANSWER TO THAT IS NO. IT
4 DEPENDS ON THE FORMAT IN WHICH THE PROGRAM IS STORED AND HOW IT
5 IS USED. IT HAS TO BE IN A SECTION OF MEMORY THAT THE
6 MICROPROCESSOR CAN ADDRESS. THE MICROPROCESSOR CAN'T ADDRESS
7 THE DISK DIRECTLY. IT HAS TO TRANSFER IT.

8 Q. I DON'T THINK THAT WAS MY QUESTION.

9 A. I THOUGHT IT WAS, ACTUALLY. THAT'S THE WAY IT CAME TO ME.

10 Q. ISN'T IT TRUE YOU COULD HAVE A COMPUTER PROGRAM ON A FLOPPY
11 DISK FOR A VIDEO GAME WHICH WOULD DISPLAY THE SAME COMPOSIT
12 VIDEO SIGNAL AS THE COMPUTER PROGRAM FOR THE SAME GAME ON A READ
13 ONLY MEMORY CARTRIDGE?

14 A. IT IS POSSIBLE UNDER THE RIGHT SET OF CIRCUMSTANCES, YES.
15 BUT THE DISK ITSELF IS NOT THE DISPLAY. IT IS NOT ADDRESSABLE
16 AS SUCH.

17 Q. ANOTHER MEDIUM, OTHER THAN A READ ONLY MEMORY CHIP FOR A
18 COMPUTER PROGRAM, WOULD BE A COMPACT DISC; IS THAT RIGHT?

19 A. THOSE ARE STORAGE MEDIA, THAT'S CORRECT. BUT THEY ARE NOT
20 DIRECTLY ADDRESSABLE THE SAME WAY A READ ONLY MEMORY IS.

21 THE COURT: I DON'T UNDERSTAND WHAT YOU MEAN BY
22 ADDRESSABLE. YOU USED THAT TERM IN CONNECTION WITH SOME MEMORY
23 STORAGE DEVICE WHERE YOU GIVE INSTRUCTIONS TO PULL BACK
24 INFORMATION, AND A READ ONLY MEMORY TAPE YOU JUST START RUNNING
25 THE THING AND IT PUTS OUT ITS OWN INSTRUCTIONS?

1 A. I GUESS THAT IS A DEFINITION. BUT I THINK OF AN ALGORITHM
2 AS A RULE FOR PROBLEM SOLVING. THAT IS THE GENERALLY ACCEPTED
3 DEFINITION.

4 Q. WOULD YOU DISAGREE WITH MY DEFINITION THAT AN ALGORITHM IS A
5 CALCULATION PERFORMED IN A SEQUENCE OF STEPS OVER A PERIOD OF
6 TIME?

7 A. THAT IS MORE OF A DESCRIPTION OF AN ALGORITHM'S
8 IMPLEMENTATION. I THINK REALLY THE PROBLEM IS IF YOU LOOK AT
9 THE FORMAL DEFINITION, THE ALGORITHM IS ACTUALLY THE RULE FROM
10 WHICH THE PROGRAM IS WRITTEN.

11 Q. YOU WOULD AGREE, WOULDN'T YOU, THAT THE ALGORITHMS IN THE
12 PROGRAM FOR THE ATARI 2600 SERVE AS A CALCULATION PERFORMED IN A
13 SEQUENCE OF STEPS OVER A PERIOD OF TIME?

14 A. THEY RESULT IN A SEQUENCE OF STEPS, YES. I THINK IT IS MORE
15 TERMINOLOGY THAN IMPORTANT. I DON'T WANT TO QUIBBLE THE POINT.
16 CERTAINLY IN THIS ATARI 2600 THERE ARE SEQUENCES OF STEPS THAT
17 ARE PERFORMED IN A PERIOD OF TIME.

18 Q. NOW, THE ALGORITHMS IN THE ATARI 2600 ARE CONTAINED IN THE
19 READ ONLY MEMORY CHIP; IS THAT RIGHT?

20 A. THERE ARE VARIOUS SECTIONS OF THAT MEMORY CHIP WHICH HOLD
21 INSTRUCTIONS THAT ARE RESPONSIBLE FOR PERFORMING ALGORITHMS,
22 THAT'S TRUE.

23 Q. AND THE READ ONLY MEMORY CHIP IN THE CONTEXT OF THE ATARI
24 2600 SERVES AS THE COMPUTER PROGRAM FOR THE 2600; IS THAT RIGHT?

25 A. IT STORES THE PROGRAM.

1 THE COURT: THAT CHIP IS IN THE CARTRIDGE; IS THAT
2 RIGHT.

3 MR. ESCHER: THAT'S CORRECT.

4 THE WITNESS: YES.

5 Q. (BY MR. ESCHER) THE ALGORITHMS WHICH ARE STORED IN THE READ
6 ONLY MEMORY CHIP DEFINE THE MOTIONS IN EACH GAME WHICH MAKES THE
7 GAMES DISTINCTIVE; ISN'T THAT RIGHT?

8 A. THAT'S TRUE.

9 Q. TURNING NOW TO THE PHOTO OF THE TIA CHIP, OR SOMETIMES KNOWN
10 AS THE VIC CHIP, VIDEO INTERFACE CHIP USED IN THE ATARI
11 2600, THAT HAS BEEN MARKED AS DEFENDANTS EXHIBIT HP, DOCTOR
12 RIBBENS, DO YOU RECOGNIZE ANY PORTION OF THIS CHIP AS CONTAINING
13 THE RANDOM ACCESS MEMORY?

14 A. WELL, NO; ACTUALLY, I DON'T. AS A MATTER OF FACT, I AM NOT
15 A SOLID STATE PERSON. I AM A USER. I BUY INTEGRATED CIRCUITS
16 AND USE THEM AS SYSTEM COMPONENTS.

17 I AM NOT VERY FAMILIAR WITH THE INTERNAL STRUCTURE.
18 THERE IS ANOTHER MEMBER OF THE FACULTY THAT RUNS THE LABORATORY
19 THAT MAKES INTEGRATED CIRCUITS. THAT IS NOT PART OF MY
20 EXPERTISE.

21 Q. THE ATARI 2600 USES A RANDOM ACCESS MEMORY OR SCRATCH PAD
22 MEMORY TO STORE THE RESULTS OF CALCULATIONS, ISN'T THAT RIGHT?

23 A. THAT'S TRUE.

24 Q. ISN'T IT TRUE THAT THERE'S NO SUCH RANDOM ACCESS OR SCRATCH
25 PAD MEMORY WHICH EXISTS IN THE CIRCUITRY DESCRIBED IN THE

1 SPECIFICATION OF THE RUSCH PATENT?

2 A. THAT IS TRUE. IT WOULD HAVE BEEN OUT OF THE QUESTION
3 BECAUSE THEY DIDN'T EXIST.

4 Q. NO SUCH MEMORY WAS NEEDED BECAUSE THOSE CALCULATIONS WEREN'T
5 PERFORMED IN THE RUSCH TECHNOLOGY, ISN'T THAT RIGHT?

6 A. WHAT DO YOU MEAN BY THE RUSCH TECHNOLOGY?

7 Q. THE CIRCUITRY DESCRIBED IN THE SPECIFICATIONS OF THE RUSCH
8 PATENT.

9 A. OF COURSE. RUSCH WAS ATTEMPTING TO BUILD A LOW COST
10 TELEVISION GAME, AND THERE WAS NO WAY TO IMPLEMENT ANYTHING THAT
11 REMOTELY RELATED TO COMPUTER TECHNOLOGY WITHIN THE COST
12 CONSTRAINTS.

13 HE HAD TO STRUGGLE TO KEEP THE COST DOWN TO USING
14 INDIVIDUAL DISCREET COMPONENTS. THE MICROPROCESSOR WASN'T
15 AVAILABLE AT THAT TIME, IN ANY EVENT. IT WASN'T DEVELOPED FOR
16 ANOTHER FEW YEARS.

17 Q. IN FACT, NO SUCH VIDEO INTERFACE CHIP EXISTS IN THE
18 CIRCUITRY DISCLOSED IN THE SPECIFICATIONS OF THE RUSCH PATENT,
19 ISN'T THAT RIGHT?

20 A. THAT IS TRUE.

21 Q. DOCTOR RIBBENS, ISN'T IT TRUE THAT THE DISTINCT MOTION IN
22 THE RUSCH PATENT IS AUTOMATIC UPON COINCIDENCE OF THE HIT SPOT
23 AND THE HITTING SPOT?

24 A. THE RUSCH PATENT IS, I GUESS, IF I REMEMBER RIGHT, DEFINED
25 BY THE CLAIMS. AND IN THE CLAIMS THE INDICATION IS UPON

1 DETECTING COINCIDENCE THAT DISTINCT MOTION WILL BE IMPARTED.

2 Q. IN THE CIRCUITRY DISCLOSED IN THE SPECIFICATIONS OF THE
3 RUSCH PATENT, DISTINCT MOTION WOULD BE AUTOMATIC UPON
4 COINCIDENCE OF THE HIT SPOT AND THE HITTING SPOT, WOULD IT NOT?

5 A. ARE YOU REFERRING TO THE SPECIFIC EMBODIMENT THAT THEY GIVE
6 AS AN EXAMPLE?

7 Q. YES, I AM.

8 A. THAT CERTAINLY IS AUTOMATIC.

9 Q. ISN'T IT TRUE THAT IN THE CIRCUITRY DISCLOSED IN THE
10 SPECIFICATIONS OF THE RUSCH 2 PATENT THAT THE DISTINCT MOTION IS
11 ALWAYS THE DIRECT FUNCTION OF THE VELOCITY OF EITHER THE HITTING
12 SPOT OR THE HIT SPOT?

13 A. I WILL HAVE TO REMEMBER. THERE ARE A NUMBER OF SPECIFIC
14 EXAMPLES THAT ARE GIVEN.

15 MAY I HAVE THE QUESTION BACK AGAIN?

16 (RECORD READ)

17 THE WITNESS: I DONT THINK THAT'S TRUE.

18 THE COURT: I DIDN'T HEAR YOU.

19 THE WITNESS: I DON'T THINK IT IS TRUE.

20 Q. (BY MR. ESCHER) YOU ARE NOT SURE?

21 A. I BELIEVE IT IS INCORRECT.

22 Q. DOCTOR RIBBENS, ISN'T IT TRUE THAT IN THE ATARI 2600 THE
23 DISTINCT MOTION DEPENDS ON A CALCULATION BY THE MICROPROCESSOR
24 DEFINED BY THE ALGORITHMS CONTAINED IN THE READ ONLY MEMORY?

25 A. PARDON ME. I WAS THINKING ABOUT THE LAST ANSWER.

1 MAY I HAVE THE QUESTION BACK?

2 (RECORD READ)

3 THE WITNESS: I AM NOT SURE WHETHER YOU CALL IT
4 CALCULATIONS. BUT CERTAINLY THERE ARE A SEQUENCE OF STEPS WHICH
5 DETERMINE THE MOTION OF THE HIT SYMBOL AFTER COINCIDENCE HAS
6 BEEN DETECTED.

7 Q. (BY MR. ESCHER) DOCTOR RIBBENS, THERE HAS BEEN EARLIER
8 TESTIMONY IN THIS CASE THAT ONE OF MR. RUSCH'S GOALS WAS TO
9 GENERATE SPOTS WITH SHAPES OTHER THAN SQUARES OR RECTANGLES.

10 ISN'T IT TRUE THAT THE EARLIER ODYSSEY GAMES ALL USED
11 RECTANGULAR HIT AND HITTING SPOTS AS IN THE BAER PATENT?

12 A. AS A MATTER OF FACT, I AM NOT FAMILIAR ENOUGH WITH THEM TO
13 BE ABLE TO ANSWER THAT QUESTION. I HONESTLY HAVEN'T STUDIED
14 ODYSSEY IN PREPARATION FOR THIS. I CAN'T ANSWER YOUR QUESTION.

15 Q. NOW, IN THE CIRCUITRY DESCRIBED IN THE SPECIFICATION OF THE
16 RUSCH 2 PATENT THERE'S APPROXIMATELY 50 TRANSISTORS, AREN'T
17 THERE?

18 A. I NEVER COUNTED THEM. I DON'T KNOW.

19 Q. DOES THAT SOUND ABOUT RIGHT?

20 A. I GUESS IT SOUNDS ABOUT RIGHT. DEPENDS ON HOW ONE GOES
21 ABOUT IMPLEMENTING SOME OF THE FUNCTIONS WHICH ARE LEFT IN BLOCK
22 DIAGRAM FORM. IT WOULDN'T BE REMARKABLY WRONG.

23 Q. ISN'T IT TRUE THAT THE ATARI 2600 VIDEO COMPUTER SYSTEM WITH
24 A GAME CARTRIDGE IN IT USES TENS OF THOUSANDS OF TRANSISTORS?

25 A. THAT'S TRUE, I AM SURE. LOOKING AT THIS AS AN EXAMPLE HERE,

1 YES.

2 THAT'S ONE OF THE REMARKABLE ACHIEVEMENTS OF THE SOLID
3 STATE TECHNOLOGY THAT GOES ON DOWN IN THE VALLEY.

4 Q. DOCTOR RIBBENS, ISN'T IT TRUE THE MEANS FOR GENERATING A HIT
5 SYMBOL IN THE ATARI 2600 IS A COMBINATION OF THE MICROPROCESSOR
6 AND THE TIA CHIP PURSUANT TO INSTRUCTIONS FROM THE PROGRAM WHICH
7 DESCRIBES THE SHAPE OF THE HIT SYMBOL?

8 A. THOSE CERTAINLY ARE FEATURES INCLUDED IN THE GENERATION.

9 Q. AND THE SAME WOULD BE TRUE OF THE MEANS FOR GENERATING THE
10 HITTING SYMBOL?

11 A. YES. BOTH OF THEM ARE GENERATED--THE SIGNALS THAT PRODUCE
12 THOSE SYMBOLS ARE PRODUCED IN THE TIA CHIP WORKING IN
13 CONJUNCTION WITH THE MICROPROCESSOR UNDER PROGRAM CONTROL. I
14 WOULD SAY THAT IS A FAIR STATEMENT.

15 Q. WITH RESPECT TO THE MEANS FOR DETERMINING INCIDENCE IN THE
16 ATARI 2600, ISN'T THAT TYPICALLY ACCOMPLISHED BY A COMPARISON OF
17 LOCATIONS WHICH TAKE PLACE IN THE TIA OR THE VIDEO INTERFACE
18 CHIP?

19 A. YOU ARE POINTING OVER HERE. WHERE?

20 Q. THE MICROGRAPH?

21 A. MAY I HAVE THE QUESTION BACK?

22 (RECORD RECORD)

23 THE WITNESS: WHAT LOCATIONS ARE YOU TALKING ABOUT NOW?

24 Q. (BY MR. ESCHER) I BELIEVE THE LOCATIONS ON THE SCREEN.

25 A. OF WHAT?

1 Q. THE HIT SPOT AND THE HITTING SPOT. WE ARE TALKING ABOUT
2 COINCIDENCE NOW.

3 A. IN THE TIA CHIP THE ACTUAL TIA CHIP HAS A SET OF HARDWARE
4 REGISTERS CALLED COLLISION LATCHES WHICH ARE ACTIVATED WHEN THE
5 VIDEO SIGNALS FOR A PAIR OF SYMBOLS COINCIDE. THAT IS THE
6 MECHANISM BY WHICH THE TIA CHIP IS OPERATIVE FOR DETERMINING
7 COINCIDENCE.

8 THEN THOSE LATCHES ARE LATER INTERROGATED BY THE
9 MICROPROCESSOR BY ISSUING A READ COMMAND ON THE ADDRESS LINES.

10 Q. DOCTOR RIBBENS, ARE THE MEANS FOR IMPARTING DISTINCT MOTION
11 IN THE ATARI 2600 LOCATED IN THE MICROPROCESSOR AND THE VIDEO
12 INTERFACE CHIP PURSUANT TO THE MOTION ALGORITHMS CHARACTERISTIC
13 OF THE GAME WHICH ARE CONTAINED IN THE READ ONLY MEMORY CHIP?

14 A. WELL, THOSE ARE CERTAINLY ELEMENTS THAT ARE INCLUDED IN THE
15 MOTION, THAT IS TO SAY, THAT THE TIA CHIP GENERATES THE SIGNALS
16 WHICH CAUSES THE SYMBOLS TO APPEAR.

17 AND THEIR RELATIVE MOTION IS ACCOMPLISHED ON THE LOWEST
18 LEVEL OF ABSTRACTION BY HAVING THE EXTRA COUNT COME FROM THE
19 MOTION REGISTER. AND THE DATA FOR THAT MOTION IS LOADED INTO
20 THE--THAT IS NOT THE TOTAL MEANS--THAT IS LOADED IN FROM THE
21 HIGH ORDER DATA LINES D4 THROUGH D7.

22 THAT DATA COMES IN BY THE MICROPROCESSOR WRITING TO
23 THOSE REGISTERS. THERE ARE OTHER THINGS THAT GO ON AS WELL IN
24 DETERMINING MOTION.

25 Q. DOCTOR RIBBENS, GIVEN YOUR EXPERTISE IN ELECTRICAL

1 ENGINEERING AND COMPUTER SCIENCE, COULD YOU BUILD OR DESIGN FROM
2 SCRATCH A MASTER CONSOLE LIKE THE ATARI 2600 VIDEO COMPUTER
3 SYSTEM?

4 A. IF I BOUGHT THE CHIPS. OBVIOUSLY, I CAN'T MAKE THE CHIPS.

5 Q. SO THE ANSWER IS YES, IF YOU BOUGHT THE COMPONENTS?

6 A. IF I BOUGHT THE COMPONENTS, I COULD WIRE SOMETHING LIKE THIS
7 UP, YES. I AM NOT A VERY GOOD TECHNICIANS. PROBABLY WOULDN'T
8 LOOK VERY GOOD. EVENTUALLY, I COULD GET IT TO WORK.

9 Q. ISN'T IT TRUE THAT THE CIRCUITRY DESCRIBED IN THE
10 SPECIFICATIONS OF THE RUSCH 2 PATENT WOULDN'T TEACH YOU ANYTHING
11 TODAY ABOUT HOW TO DESIGN THE ATARI 2600 FROM SCRATCH?

12 A. THERE'S NOTHING IN THE SCHEMATICS OR THE BODY OF THE TEXT
13 THAT TALKS AT ALL ABOUT CIRCUITRY WHICH IS APPROPRIATE FOR
14 MICROPROCESSORS. THEY DIDN'T EXIST AT THE TIME. IT COULDN'T
15 HAVE.

16 Q. DOCTOR RIBBENS, HAVE YOU HAD AN OPPORTUNITY TO EXAMINE THE
17 ATARI 400 HOME COMPUTER SYSTEM?

18 A. NOT AT ALL.

19 Q. ARE YOU AWARE THAT ACTIVISION HAS SOLD CARTRIDGES FOR USE
20 WITH THAT HOME COMPUTER?

21 A. SOMEONE MENTIONED IT TO ME. I DON'T REMEMBER. IF YOU TELL
22 ME IT IS TRUE, I WOULDN'T BE SURPRISED. BUT I DON'T KNOW THAT'S
23 TRUE.

24 MR. ESCHER: I CAN RELATE TO THE COURT THE FACT
25 ACTIVISION HAS SOLD CARTRIDGES FOR USE WITH THAT HOME COMPUTER,

1 INCLUDING THE VIDEO GAME KEYSTONE CAPERS, WHICH FORMERLY WAS AN
2 ACCUSED GAME IN THIS CASE AND IS NO LONGER.

3 Q. (BY MR. ESCHER) WOULD YOU CONSIDER THE ATARI 400 HOME
4 COMPUTER IN USE WITH THE GAME CARTRIDGE TO BE A TELEVISION GAME
5 CONSOLE?

6 MR. ANDERSON: JUST WITH RESPECT TO THE COLLOQUY SO THE
7 RECORD IS CLEAR, I GUESS MR. ESCHER IS REFERRING TO THE FACT
8 THAT A CARTRIDGE FOR THE 2600 ATARI WAS ONCE ACCUSED FOR PLAYING
9 THE GAME KEYSTONE CAPERS.

10 YOU ARE NOT SUGGESTING THEY EITHER HAD OR ACCUSED THE
11 CARTRIDGE FOR THE 400; IS THAT CORRECT.

12 MR. ESCHER: I AM TAKING NO POSITION WHETHER YOU HAVE
13 ACCUSED IT OR NOT.

14 MR. ANDERSON: WHAT WAS YOUR STATEMENT?

15 MR. GLICK: EXCUSE ME.

16 (PAUSE IN PROCEEDINGS)

17 MR. ESCHER: I DON'T BELIEVE THERE IS ANY ISSUE IN THE
18 CASE THAT THE PLAINTIFFS HAVEN'T CLAIMED THAT ANY CARTRIDGE FOR
19 THE ATARI 400 HOME COMPUTER INFRINGES THE RUSCH PATENT IN THIS
20 CASE.

21 Q. DOCTOR RIBBENS, WITH RESPECT TO MODERN PERSONAL COMPUTERS
22 LIKE AN IBM PC OR AN APPLE COMPUTER---

23 THE COURT: GO BACK TO THE QUESTION YOU ASKED HIM. I
24 DON'T THINK YOU GOT AN ANSWER, WHICH WAS THE QUESTION OF THE
25 APPLICATION OF A CARTRIDGE TO A HOME VIDEO COMPUTER AND HOW THAT

1 RELATES TO SOME OF THESE PATENTS.

2 MR. ESCHER: THANK YOU YOUR HONOR. I WILL REASK THE
3 QUESTION.

4 Q. (BY MR. ESCHER) DOCTOR RIBBENS, DO YOU CONSIDER THE ATARI
5 400 HOME COMPUTER IN USE WITH A GAME CARTRIDGE TO BE A
6 TELEVISION GAME CONSOLE?

7 A. COULDN'T BEGIN TO ANSWER THAT QUESTION. I HAVE NEVER
8 STUDIED THE ATARI 400, EVER. THAT WAS NOT PRESENTED TO ME AS
9 BEING SOMETHING I NEEDED TO DEAL WITH IN THIS SUIT. SO I NEVER
10 LOOKED AT IT.

11 MR. GLICK: EXCUSE ME YOUR HONOR, ONE MOMENT.

12 (CONTINUED ON NEXT PAGE)

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1 Q. (BY MR. ESCHER) DR. RIBBENS, IN YOUR EXPERT OPINION WOULD
2 AN ACTIVISION GAME CARTRIDGE FOR THE VIDEO GAME THE ACTIVISION
3 DECATHLON INFRINGE THE RUSCH PATENT IF IT WAS USED IN CONNECTION
4 WITH A HOME COMPUTER?

5 A. AGAIN, I CAN'T ANSWER THAT. I HAVEN'T STUDIED THE--- I
6 WOULD REALLY HAVE TO STUDY IT IN DETAIL. I HAVEN'T HAD ANY
7 OPPORTUNITY TO LOOK AT ANYTHING PERTAINING TO THE RUSCH PATENT
8 IN CONNECTION WITH HOME COMPUTER. I WASN'T ASKED TO DO THAT.

9 Q. WOULD YOUR EXPERT OPINION WITH RESPECT TO THE ISSUE OF
10 INFRINGEMENT OF AN ACTIVISION CARTRIDGE FOR A HOME COMPUTER
11 DEPEND ON WHETHER DISTINCT MOTION WOULD BE DETERMINED BY THE
12 CHANGE IN THE TIME DELAY FROM THE SYNCHRONIZING PULSE TO THE
13 SIGNAL FROM EACH PICTURE TO THE NEXT SO THAT IN EACH SUCCEEDING
14 PICTURE THAT TIME DELAY WOULD EITHER INCREASE OR DECREASE
15 DEPENDING UPON WHETHER THE MOTION IS TO BE TO THE RIGHT OR LEFT?

16 A. THAT WOULD CERTAINLY BE PART OF IT, BUT I'M NOT SURE THAT
17 WOULD BE ALL OF IT.

18 I REALLY WOULD NEED TO LOOK AT THE WHOLE SYSTEM AND SEE
19 HOW IT IS OPERATED. IT IS UNFAIR FOR ME TO SPECULATE ABOUT
20 SOMETHING I HADN'T STUDIED.

21 Q. WHAT OTHER FACTORS WOULD YOU NEED TO LOOK INTO?

22 A. I WOULD LIKE TO SEE HOW THE VIDEO SIGNAL IS CREATED AND WHAT
23 FORMAT IT HAS AND WHAT THE EXACT DISPLAY DEVICE IS. I DON'T
24 KNOW ANYTHING ABOUT THE DISPLAY DEVICE FOR JUST AN UNSPECIFIED
25 COMPUTER.

1 Q. LET'S SAY IT WAS A RASTER SCAN DISPLAY DEVICE?

2 A. IT IS LIKELY THAT IT COULD. I WOULD STILL NEED TO STUDY.

3 Q. WHAT ELSE WOULD YOU NEED TO STUDY, OTHER THAN FINDING OUT
4 WHETHER IT WAS A RASTER SCAN DISPLAY DEVICE?

5 A. I WOULD LIKE TO LOOK AT THE SCHEMATICS FOR THE WHOLE SYSTEM
6 AS I HAVE DONE HERE.

7 Q. HOW WOULD AN INSPECTION OF THE SCHEMATICS AFFECT YOUR EXPERT
8 OPINION ON INFRINGEMENT?

9 MR. ANDERSON: I THINK MR. ESCHER INTERRUPTED THE
10 WITNESS.

11 THE COURT: PARDON ME?

12 MR. ANDERSON: MR. ESCHER INTERRUPTED THE WITNESS. I
13 DON'T THINK HE FINISHED.

14 THE COURT: IF HE HAS NOT FINISHED HIS ANSWER, HE MAY
15 DO SO.

16 THE WITNESS: I WAS JUST THINKING ABOUT WHAT THINGS I
17 WOULD NEED TO EXAMINE. PRETTY MUCH THE SAME THINGS I HAVE
18 EXAMINED HERE--THE GENERATION, THE VARIOUS VIDEO SIGNALS, LOOK
19 AT THE BLOCK DIAGRAMS.

20 Q. (BY MR. ESCHER) WHAT WOULD THE BLOCK DIAGRAM TELL YOU ABOUT
21 WHETHER THE CARTRIDGE IN CONNECTION WITH THE HOME COMPUTER
22 INFRINGED THE RUSCH PATENT?

23 A. WELL, THE BLOCK DIAGRAM IS THE HIGHEST LEVEL OF VIEWING THE
24 SYSTEM AND THAT'S WHERE YOU START ORGANIZING YOUR THOUGHTS ABOUT
25 HOW IT IS OPERATING. SO I ALWAYS START WITH THE BLOCK DIAGRAM

1 AND THEN LOOK AT THE SCHEMATICS, THE VARIOUS WAVEFORMS.

2 Q. WHAT ABOUT THE WAVEFORMS WOULD INFLUENCE YOUR OPINION WITH
3 RESPECT TO INFRINGEMENT?

4 A. WHETHER OR NOT THEY WERE GENERATED FOR A PARTICULAR SYMBOL
5 IN RELATIONSHIP TO THE HORIZONTAL AND VERTICAL SYNCHRONIZING
6 PULSES AND THE MECHANISM FOR DETERMINING THE POSITION OF THE
7 SYMBOL UNDER PLAYER CONTROL. REALLY THERE ARE A NUMBER OF
8 FACTORS I WOULD HAVE TO CONSIDER.

9 Q. GO AHEAD AND LIST THEM, PLEASE.

10 A. THE STRUCTURE OF THE SYSTEM, ITS DISPLAY TECHNOLOGY.

11 Q. WHAT DO YOU MEAN BY ITS DISPLAY TECHNOLOGY?

12 A. IF IT IS RASTER SCAN. YOU HAVE TAKEN THE PRESUMPTION THAT
13 IT IS A RASTER SCAN. THEN I WOULD LOOK AT HOW THE RASTER IS
14 CONTROLLED, PRESUMABLY BY SYNCHRONIZING PULSES WITH ASSOCIATED
15 SWEEP CIRCUITS.

16 Q. WHAT ABOUT THE STRUCTURE OF THE SYSTEM WOULD YOU NEED TO
17 TAKE A LOOK AT?

18 A. THE WHOLE STRUCTURE. I MEAN, THE BLOCK DIAGRAM FOR THE
19 WHOLE SYSTEM AND THE SCHEMATICS FOR THE WHOLE SYSTEM. SPEND A
20 LITTLE BIT OF TIME LOOKING AT THE COMPUTER PROGRAM THAT IS
21 RESPONSIBLE FOR THE GAME AND FOR THE DISPLAY.

22 Q. WHAT ABOUT THE COMPUTER PROGRAM WOULD INFLUENCE YOUR EXPERT
23 OPINION ON INFRINGEMENT?

24 A. WELL, AMONG THE FEATURES THAT ARE INCLUDED IN THE RUSCH
25 PATENT IS NOT JUST PLACEMENT OF SYMBOLS ON THE SCREEN, BUT YOU

1 WILL RECALL IT ALSO INVOLVES THE GENERATION OF SYMBOLS THAT ARE
2 UNDER PLAYER CONTROL AND A SYMBOL THAT IS UNDER THE CONTROL OF
3 THE MACHINE, THAT IS, ONE THAT MOVES AUTOMATICALLY. AND THEN IN
4 ADDITION TO THAT, THERE IS DETECTION OF COINCIDENCE AND
5 IMPARTING OF DISTINCT MOTION.

6 Q. ASSUME THAT WE ARE PLAYING THE GAME THE ACTIVISION DECATHLON
7 IN CONNECTION WITH THE HOME COMPUTER AND THAT THE GAME MOTION IS
8 SUBSTANTIALLY THE SAME AS IT IS IN CONNECTION WITH THE
9 ACTIVISION CARTRIDGE FOR THE ATARI 2600.

10 WOULDNT'T THOSE FACTS ENABLE YOU TO GIVE AN OPINION ON
11 THE ISSUE OF INFRINGEMENT WITH RESPECT TO USE OF AN ACTIVISION
12 CARTRIDGE IN CONNECTION WITH THE HOME COMPUTER?

13 A. I WOULDNT'T WANT TO TRY TO FORM A CONCLUSIVE OPINION WITHOUT
14 STUDYING IT IN DETAIL. I MEAN, THERE ARE TOO MANY PLACES WHERE
15 I COULD BE INCORRECT.

16 A. THERE ARE ASSUMPTIONS THAT YOU CAN MAKE AND THEY MAYBE
17 RIGHT, THEY MAYBE WRONG. BUT THERE ARE A NUMBER OF FACTORS. I
18 JUST---

19 Q. NOW, DR. RIBBENS, WITH RESPECT TO MODERN PERSONAL COMPUTERS
20 LIKE AN IBM PC OR AN APPLE, THOSE DEVICES USE RASTER SCAN
21 DISPLAYS, DO THEY NOT?

22 A. I BELIEVE THEY DO. BUT I AM NOT CERTAIN THEY ALL DO.

23 Q. AND THE APPLE COMPUTERS USE MICROPROCESSORS FROM THE SAME
24 6500 FAMILY AS THE ATARI 2600?

25 A. TO TELL YOU THE TRUTH, I'M NOT SURE WHICH PROCESSOR IS USED.

1 BUT IF YOU TELL ME THAT, I AM CERTAIN YOU ARE RIGHT. YOU HAVE
2 THE INFORMATION. I HAVEN'T LOOKED IT UP. I DON'T KNOW WHETHER
3 IT IS AN EIGHT BIT OR 16 BIT PROCESS, QUITE HONESTLY. I WOULD
4 HAVE THOUGHT IT WOULD BE A 16 BIT PROCESSOR.

5 Q. DR. RIBBENS, DID YOU MAKE A PERSONAL DETERMINATION AS TO THE
6 ISSUE OF INFRINGEMENT OF THE ACTIVISION CARTRIDGES?

7 A. MY JOB, AS FAR AS I AM CONCERNED, WAS TO UNDERSTAND THE
8 SYSTEM AND TO READ THE CLAIMS AGAINST THE ACCUSED GAME.

9 Q. DID YOU MAKE THE DETERMINATION OF INFRINGEMENT BY FIRST
10 VIEWING ALL OF THE 42 ACTIVISION CARTRIDGE GAMES?

11 A. NO, I DID NOT.

12 Q. HAVE YOU VIEWED ALL OF THE ACTIVISION GAMES WHICH ARE
13 PRESENTLY ACCUSED IN THIS CASE?

14 A. YES, I HAVE.

15 Q. WHAT OTHER ACTIVISION GAMES HAVE YOU VIEWED?

16 A. REALLY NONE. I SHOULDN'T SAY THAT. I CAN'T BE ABSOLUTELY
17 CERTAIN. I HAVE SEEN SO MANY THINGS OVER SEVERAL MONTHS. I MAY
18 HAVE SEEN ONE OR TWO OTHERS, BUT I DON'T REMEMBER THEM. I DO
19 REMEMBER SEEING ALL OF THOSE THAT WE HAVE DISCUSSED IN MY DIRECT
20 TESTIMONY.

21 Q. IN THE PROCESS THAT YOU WENT THROUGH IN ORDER TO MAKE A
22 DETERMINATION OF INFRINGEMENT IN YOUR EXPERT OPINION, DID YOU
23 FIRST VISUALLY INSPECT THE DISPLAY OF THE ACCUSED ACTIVISION
24 GAMES?

25 A. I DON'T REMEMBER WHAT I DID FIRST, HONESTLY.

1 Q. BUT AT SOME POINT YOU DID WATCH EACH GAME AND COMPARE THE
2 GAME WITH THE CLAIMED LANGUAGE OF THE RUSCH II PATENT; IS THAT
3 RIGHT?

4 A. YES, I DID.

5 Q. YOU APPLIED THE CLAIM LANGUAGE TO THE GAMES TO MAKE A
6 DETERMINATION OF INFRINGEMENT OR NOT; IS THAT RIGHT?

7 A. I APPLIED THE CLAIMS TO THE COMPOSITE SYSTEM, THE 2600 WITH
8 THE ROM CARTRIDGE, THAT'S CORRECT.

9 Q. HAVE YOU EVER VIEWED A VIDEO GAME CARTRIDGE DISPLAYED ON A
10 TELEVISION THAT DID NOT, IN YOUR VIEW, INFRINGE THE RUSCH
11 PATENT?

12 A. WELL, THAT'S--I WOULD HAVE TO THINK BACK THROUGH MY MEMORY.
13 IT SEEMS TO ME THAT THERE WAS A DEMONSTRATION OF A GAME HERE
14 THAT MAY NOT HAVE. I COULDN'T BE ABSOLUTELY CERTAIN. BUT I
15 BELIEVE IT DIDN'T.

16 FOR EXAMPLE, YOU WERE SHOWING A GAME THAT WAS SORT OF A
17 CARD GAME. I WOULD SEE VERY LITTLE LIKELIHOOD THAT THAT COULD
18 READ THE CLAIMS AGAINST THAT BECAUSE I DON'T REMEMBER SEEING ANY
19 PLAYER CONTROLLED SYMBOL. SO THAT'S AN EXAMPLE.

20 BUT IF YOU ASK ME IF I HAVE EVER SEEN, I WOULD HAVE TO
21 SEARCH THROUGH MY MEMORY ABOUT GAMES. I AM NOT AN INVETERATE
22 GAME PLAYER. I RARELY PLAY THESE GAMES. I HAVE ONLY PLAYED
23 THEM IN PREPARATION FOR THIS LAWSUIT.

24 Q. DO YOU RECALL EVER HAVING VIEWED AN ACTIVISION VIDEO GAME
25 CARTRIDGE DISPLAYED ON A TELEVISION, OTHER THAN BRIDGE, WHICH IN

1 YOUR VIEW DID NOT INFRINGE THE RUSCH PATENT?

2 A. THAT IS A HARD QUESTION. SEE THE PROBLEM IS JUST SIMPLY
3 LOOKING AT THE DISPLAY ON THE SCREEN THERE MIGHT BE SOME ASPECTS
4 OF IT THAT INFRINGE. IT IS A VERY HARD QUESTION FOR ME TO
5 ANSWER, BECAUSE I HAVEN'T--- FIRST OF ALL, I HAVEN'T PAID THAT
6 MUCH ATTENTION TO TELEVISION GAMES ASIDE FROM THE ONES THAT I
7 WAS ASKED TO REVIEW.

8 Q. WHICH ONES WERE YOU ASKED TO REVIEW?

9 A. IF I CAN REMEMBER THEM ALL. THERE WAS TENNIS, HOCKEY. I
10 HAVE THEM HERE. I CAN READ THEM OFF.

11 Q. GO AHEAD THEN.

12 A. DECATHLON, STAMPEDE, TENNIS, HOCKEY, BOXING, FISHING DERBY,
13 SHORT ORDER SAM, WHICH I THINK HAS ANOTHER NAME.

14 Q. PRESSURE COOKER.

15 A. GRAND PRIX, BARN STORM {GOIGONE}BARNSTORMING, SKYJINKS.

16 Q. DID YOU EVER VIEW THE ACTIVISION GAMES DOLPHIN AND KEYSTONE
17 CAPERS?

18 A. IF I DID, I DON'T REMEMBER.

19 Q. NOW, WHEN YOU WERE INSPECTING THE ACTIVISION GAMES AS
20 DISPLAYED ON THE TELEVISION SCREEN DID YOU AS PART OF YOUR
21 DETERMINATION OF INFRINGEMENT OR NOT WATCH THE GAMES TO
22 DETERMINE WHETHER THERE WAS ANY DISTINCT MOTION IN THE GAME?

23 A. CERTAINLY. THERE HAS TO BE SYMBOLS THAT ARE DISPLAYED ON
24 THE SCREEN AND COINCIDENCE HAS TO OCCUR, AND THEN DISTINCT
25 MOTION HAS TO IMPART.

1 Q. SO IN YOUR VIEW THERE HAS TO BE A DISTINCT MOTION IN ORDER
2 FOR THERE TO BE INFRINGEMENT OF THE RUSCH PATENT?

3 A. I AM NOT CLAIMING I CAN SAY--I CAN ASSERT WHETHER THERE IS
4 INFRINGEMENT OR NOT. TO READ AGAINST THE CLAIM I WOULD
5 CERTAINLY HAVE TO SEE DISTINCT MOTION. IT IS CERTAINLY CALLED
6 FOR IN THE CLAIM.

7 Q. AND HAVE YOU PERSONALLY REVIEWED THE COMPUTER PROGRAMS FOR
8 ALL OF THE 11 ACCUSED GAMES?

9 A. I HAVE LOOKED THEM OVER, YES.

10 Q. AND HAVE YOU REVIEWED THE COMPUTER PROGRAMS FOR ANY OF THE
11 OTHER ACTIVISION SOFTWARE TO DETERMINE ANY DIFFERENCES BETWEEN
12 THOSE PROGRAMS WITH RESPECT TO INFRINGEMENT OF THE RUSCH PATENT?

13 A. WHAT OTHER PROGRAMS? YOU MEAN OTHER THAN THOSE----

14 Q. OTHER THAN THE 11.

15 A. NO, I HAVEN'T.

16 Q. DR. RIBBENS, HAVE YOU DETERMINED THAT THE ACTIVISION
17 CARTRIDGES WHICH ARE NOT ACCUSED IN THIS CASE DO NOT HAVE
18 DISTINCT MOTION IN THEM?

19 A. I THINK I INDICATED I DIDN'T REALLY REVIEW ANY OTHERS.

20 Q. WITH RESPECT TO THE ACTIVISION CARTRIDGES FOR DOLPHIN AND
21 KEYSTONE CAPERS WHICH WERE PREVIOUSLY LISTED AS INFRINGING GAMES
22 ON THE ATARI 2600 BUT LATER WITHDRAWN BY THE PLAINTIFFS IN THIS
23 CASE, DO YOU RECALL WHETHER YOU PERSONALLY MADE ANY
24 DETERMINATION THAT THOSE GAMES INFRINGED?

25 A. NO, I'M SURE I DIDN'T. IN FACT, I DON'T REMEMBER SEEING

1 THEM, QUIET HONESTLY.

2 MR. ESCHER: I THINK IT WOULD BE APPROPRIATE NOW TO
3 DISPLAY THOSE TWO GAMES FOR JUST A LITTLE BIT.

4 THE COURT: OKAY.

5 MR. ESCHER: WE WILL DISPLAY FOR A MOMENT NOW THE
6 DOLPHIN GAME.

7 Q. (BY MR. ESCHER) DR. RIBBENS, CAN YOU SEE THIS GAME?

8 A. YES, I CAN.

9 MR. ESCHER: MR. HOVER-SMOOT, WOULD YOU START THE PLAY
10 OF THE GAME, PLEASE.

11 THE COURT: CAN YOU MOVE ASIDE JUST A MINUTE.

12 (VIDEO DISPLAYED)

13 Q. (BY MR. ESCHER) DR. RIBBENS, DO YOU RECALL NOW SEEING THE
14 ACTIVISION GAME DOLPHIN?

15 A. I JUST SAW IT. YOU JUST SHOWED IT TO ME.

16 Q. BEFORE TODAY, OBVIOUSLY.

17 A. I THINK IT WAS ON THE SCREEN HERE, WASN'T IT? I HAVEN'T
18 SEEN IT OUTSIDE OF THAT. I NEVER SAW IT AT MY HOUSE, THAT'S FOR
19 CERTAIN.

20 Q. DO YOU RECALL WHETHER YOU EVER MADE A DETERMINATION THAT THE
21 DOLPHIN GAME INFRINGED THE RUSCH PATENT?

22 A. I DID NOT.

23 Q. DR. RIBBENS, WITH RESPECT TO THE MOVEMENT OF THE SQUID
24 FIGURE AFTER COINCIDENCE BETWEEN THE SQUID FIGURE AND THE
25 DOLPHIN FIGURE WHICH WE JUST SAW, DID YOU NOTICE ANY DISTINCT

1 MOTION OF THE SQUID FIGURE?

2 A. I DON'T REMEMBER WHAT I SAW. IT HAPPENED SO FAST. WOULD
3 YOU DO IT AGAIN?

4 Q. LET'S DO IT AGAIN, THEN.

5 A. WHAT SHOULD I PUT MY ATTENTION ON? THERE IS SO MANY THINGS
6 GOING ON.

7 THE COURT: I THINK THEY WANT YOU TO LOOK AT THE TWO
8 SYMBOLS AND SEE WHETHER DISTINCT MOTION IS IMPARTED TO ONE OF
9 THE SYMBOLS.

10 THE WITNESS: I THINK SO, TOO. WHICH ONE IS PLAYER
11 CONTROLLED?

12 MR. HOVER-SMOOT: THE DOLPHIN IS THE PLAYER CONTROLLED
13 SYMBOL.

14 THE WITNESS: WHY DON'T YOU EXPLAIN WHAT YOU ARE DOING.

15 MR. ESCHER: THE DOLPHIN IS THE PLAYER CONTROLLED
16 SYMBOL. THE SQUID IS A GAME CONTROLLED SYMBOL. THE DOLPHIN
17 GOES THROUGH THESE LINES OR SEAHORSES. AND THE OBJECT IS TO TRY
18 TO GET THROUGH THE HOLES IN THE LINE OF SEAHORSES TO AVOID BEING
19 CAUGHT BY THE SQUID.

20 YOU DETERMINE WHERE THE HOLE IN THE LINE OF SEAHORSES
21 IS GOING TO BE BY THE SOUND THAT YOU HEAR FROM THE MACHINE. IT
22 IS A SONIC DETECTION WHICH IS MEANT TO SIMULATE THE DOLPHINS OWN
23 ACTION IN REAL LIFE.

24 AND AT SOME POINT THERE IS GOING TO BE A SEA GULL
25 FLYING IN THE SKY ABOVE THE SEE AND THE DOLPHIN CAN LEAP UP,

1 TOUCH THE SEA GULL AND AT THAT POINT BECOMES ABLE TO TURN AROUND
2 AND CHASE THE SQUID.

3 IF THE DOLPHIN TOUCHES THE SQUID, THE SQUID WILL CHANGE
4 COLOR AND THEN SULK OR SKULK. WEDNESDAY A QUARREL ABOUT THAT.
5 WHETHER IT IS SULKING OR SKULKING. BUT IT WILL CHANGE COLOR AND
6 MOVE AWAY FROM THE DOLPHIN. LET'S SHOW THAT GAME AGAIN, PLEASE.

7 (VIDEO DISPLAYED)

8 MR. ESCHER: LET'S TRY IT AGAIN, MR. HOVER-SMOOT.

9 MR. HOVER-SMOOT: IT IS NOT A GAME OF REPRODUCIBLE
10 RESULTS.

11 MR. ESCHER: IT IS MORE DIFFICULT THAN IT LOOKS.
12 ACTUALLY IT LOOKS PRETTY DIFFICULT.

13 (VIDEO DISPLAYED)

14 MR. ESCHER: ONE MORE TIME.

15 MR. HOVER-SMOOT: CAN I QUIT AND LET MR. GLICK DO IT.

16 MR. ESCHER: WE MIGHT BE HERE QUITE SOME TIME.

17 MR. ESCHER: THANK YOU.

18 Q. (BY MR. ESCHER) DR. RIBBENS, DID YOU DETECT ANY DISTINCT
19 MOTION IN THE DOLPHIN GAME?

20 A. PRETTY TOUGH QUESTION. AFTER YOU POINTED IT OUT, I GUESS
21 THE DOLPHIN LOOKED LIKE IT MOVED AWAY FROM--THAT IS, THE SQUID
22 MOVED AWAY FROM THE DOLPHIN. SO THAT WOULD LOOK LIKE A CLAIM
23 COULD READ, IF THAT'S WHAT YOU ARE ASKING ME.

24 Q. YOU DON'T SEE ANY REASON TO THINK THAT THE DOLPHIN GAME DOES
25 NOT INFRINGE THE RUSCH PATENT?

1 A. ON THE SURFACE--- YOU MIGHT WANT TO STUDY IT FOR AWHILE TO
2 MAKE SURE IT REALLY IS DISTINCT MOTION.

3 CERTAINLY THE DISPLAY OF THE SYMBOL ON THE SCREEN AS
4 PLAYER CONTROLLED IS THERE. AND THE SQUID APPEARS TO BE A
5 MACHINE CONTROL SYMBOL, ALTHOUGH I WOULD NEED TO REVIEW THAT A
6 LITTLE MORE CLOSELY.

7 Q. WHAT WOULD YOU NEED TO REVIEW MORE CLOSELY?

8 A. JUST HOW THE MOTION OF THE SQUID IS ACCOMPLISHED. BUT IT
9 APPEARS TO BE A GAME CONTROL. ON THE SURFACE I WOULD SAY IT
10 APPEARS TO BE.

11 Q. LET'S TURN NOW TO THE KEYSTONE CAPERS GAME. I AM GOING TO
12 DISPLAY THAT ONE NOW. THIS IS ANOTHER ONE OF THE GAMES WHICH
13 WAS PREVIOUSLY LISTED AS AN ACCUSED GAME ON THE ATARI 2600 AND
14 HAS BEEN WITHDRAWN BY THE PLAINTIFFS. THE KEYSTONE--I AM NOT
15 SURE THAT I CAN EXPLAIN IT. MAYBE MR. HOVER-SMOOT CAN.

16 MR. HOVER-SMOOT: THE PLAYER CONTROLLED SYMBOL IS THE
17 MAN DOWN HERE. HIS HORIZONTAL POSITION IS CONTROLLED WITH THE
18 JOYSTICK. AND THE BUTTON ALLOWS THE PLAYER CONTROLLED SYMBOL TO
19 JUMP TO LEAP OVER OBSTACLES.

20 AND THE OBJECTIVE IS TO TRAP A CRIMINAL WHO IS ON THIS
21 REDUCED DISPLAY OF THE ENTIRE SCENE. THE CRIMINAL IS THERE AND
22 WE ARE OVER HERE. AND THE OBJECT IS TO CHASE HIM THROUGH THIS
23 MAZE.

24 AND THIS IS A DISPLAY MODE WHERE YOU CAN SEE THE POLICE
25 OFFICER, THE PLAYER CONTROLLED SYMBOL, AND THE MACHINE

1 CONTROLLED SYMBOL, WHICH IS THE OTHER PERSON.

2 THE WITNESS: WHICH ONE ARE YOU CONTROLLING?

3 MR. HOVER-SMOOT: THIS IS THE MACHINE CONTROLLED SYMBOL
4 OR THIS IS---

5 THE WITNESS: YOU SAID "THIS."

6 MR. ESCHER: THE MAN WITH THE BOWLER HAT. HE IS THE
7 PLAYER CONTROLLED SYMBOL.

8 MR. HOVER-SMOOT: ALL OTHER SYMBOLS ARE NOT PLAYER
9 CONTROLLED.

10 MR. ESCHER: WHAT IS THIS SYMBOLOGY DOWN HERE?

11 MR. HOVER-SMOOT: DOWN AT THE BOTTOM OF THE SCREEN THE
12 BLACK MOVING DOT REPRESENTS THE POLICE OFFICER, THE PLAYER
13 CONTROLLED SYMBOL. THE WHITE MOVING DOT REPRESENTS THE CRIMINAL
14 YOU ARE CHASING. THIS IS A DISPLAY MODE RIGHT NOW. I AM NOT
15 DOING ANYTHING.

16 MR. GLICK: IF YOU FORGIVE SEVERAL OF US TALKING AT
17 ONCE. IN THE FORMER ALLEGATION THE BOUNCING BEACH BALL, WHICH
18 IS ONE OF THE OBSTACLES, WAS ALLEGED TO BE THE HIT SPOT WHEN IT
19 INTERSECTED WITH OFFICER KELLY--THE HIT SPOT, CORRECT--AND THE
20 MOTION OF THE BALL OFF OF OFFICER KELLY WAS AT THAT TIME ALLEGED
21 TO BE THE DISTINCT MOTION THAT AT THAT TIME CAUSED THIS GAME TO
22 BE ALLEGED TO BE AN INFRINGING GAME. SO YOU MIGHT PAY ATTENTION
23 TO THAT.

24 THE WITNESS: WHICH IS THE BALL?

25 MR. GLICK: AS SOON AS THE GAME ACTUALLY STARTS ON THE

1 SCREEN YOU WILL SEE THE BOUNCING BALL.

2 THE WITNESS: I SEE.

3 MR. ESCHER: GO AHEAD, MR. HOVER-SMOOT, AND DISPLAY THE
4 GAME.

5 (VIDEO DISPLAYED)

6 MR. ESCHER: THANK YOU, MR. HOVER-SMOOT.

7 Q. (BY MR. ESCHER) DR. RIBBENS, DID YOU DETECT ANY DISTINCT
8 MOTION IN THE KEYSTONE CAPERS GAME UPON THE COINCIDENCE OF THE
9 PLAYER CONTROLLED SYMBOL, OFFICER KELLY, AND THE GAME CONTROLLED
10 SYMBOL, THE BALL?

11 A. NO, I DIDN'T.

12 Q. ISN'T IT TRUE THAT THE BALL STOPS ITS HORIZONTAL MOTION UPON
13 COINCIDENCE WITH OFFICER KELLY?

14 A. AND THEN IT DISAPPEARS. I'M NOT SURE YOU CAN HAVE A
15 DISTINCT MOTION WITH SOMETHING THAT DISAPPEARS.

16 Q. WAS IT YOUR PERCEPTION THAT THE BALL DISAPPEARED IMMEDIATELY
17 UPON COINCIDENCE WITH OFFICER KELLY?

18 A. NO. I GUESS THAT'S TRUE. IT APPEARED TO STOP.

19 Q. WOULD YOU VIEW STOPPING AS BEING DISTINCT MOTION?

20 A. CERTAINLY NOT AS DISTINCT AS IF IT HAD MOVED IN THE OTHER
21 DIRECTION.

22 Q. SO THERE IS SOME THINGS ARE MORE DISTINCT THAN ON THE
23 OTHERS?

24 A. THERE IS A LITTLE UNCERTAINTY IN MY MIND. I WOULD HAVE TO
25 THINK ABOUT IT FOR A LITTLE WHILE. ACTUALLY THE SAME WAY WITH

1 THE DOLPHIN. I JUST--- IT IS NOT A DETERMINATION THAT IS
2 RELATIVELY EASY TO MAKE JUST ON THE SPUR OF THE MOMENT.

3 FOR EXAMPLE, IN SOME OF THE GAMES THAT I HAVE STUDIED
4 WHERE THE SYMBOL THAT IS AUTOMATICALLY MOVEABLE REACHES
5 COINCIDENCE, THE MOTION IS CLEARLY PERCEIVEABLE AS CHANGED.

6 Q. ISN'T IT TRUE THAT THE MOTION OF THE SQUID WAS CLEARLY
7 PERCEIVEABLE AFTER COINCIDENCE WITH THE DOLPHIN?

8 A. AFTER YOU POINTED IT OUT TO ME. SO, YOU KNOW, IT SEEMS TO
9 ME IT WAS REALLY DISTINCT MOTION IT SHOULD HAVE BEEN EVIDENT ON
10 MY VIEWING IT.

11 Q. WHAT IS YOUR UNDERSTANDING OF THE TERM DISTINCT MOTION AS
12 USED IN THE RUSCH PATENT, WHAT DOES IT MEAN?

13 A. I THINK IT SHOULD BE SOMETHING THAT IS CLEARLY PERCEIVEABLE
14 TO THE VIEWER, THE PERSON WHO IS PLAYING THE GAME. FOR
15 EXAMPLE---

16 Q. WHAT IS THE SOMETHING YOU ARE REFERRING TO?

17 A. YOU ASKED ME A QUESTION ABOUT MOTION, AND I WAS ANSWERING
18 THAT, WHAT THE MOTION SHOULD BE. AND THE CHANGE IN THE MOTION
19 SHOULD BE PERCEIVEABLE EASILY TO THE VIEWER, I WOULD THINK.

20 Q. IS THERE ANYTHING IN THE CLAIMS OF THE RUSCH PATENT WHICH
21 LIMITS DISTINCT MOTION TO THAT MOTION WHICH IS CLEARLY
22 PERCEIVEABLE TO THE VIEWER?

23 A. I DON'T BELIEVE HE MAKES THAT STATEMENT. I BELIEVE THE
24 WORDS ARE JUST ALLOWED TO STAND AS THEY ARE. BUT YOU ASKED ME
25 WHAT I THOUGHT.

1 Q. IN YOUR VIEW, WOULD DISTINCT MOTION INCLUDE A CHANGE IN
2 COLOR?

3 A. NO. ONLY IN COMBINATION WITH SOME OTHER MOTION.

4 MR. ESCHER: JUST ONE MOMENT, YOUR HONOR.

5 (PAUSE IN PROCEEDINGS)

6 THE COURT: SHALL WE TAKE A SHORT RECESS FOR OUR COURT
7 REPORTER AT THIS TIME.

8 MR. ESCHER: THAT WOULD BE FINE, YOUR HONOR.

9 THE COURT: UNTIL ABOUT TEN TO TEN, PLEASE.

10 (RECESS)

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1 THE COURT: ARE YOU READY, MR. ESCHER?

2 MR. ESCHER: YOUR HONOR, I WOULD LIKE THE LAST QUESTION
3 BEFORE THE BREAK READ BACK TO THE WITNESS.

4 THE REPORTER: YOU HAD ANOTHER REPORTER IN HERE.

5 THE COURT: CAN YOU GO BACK OF THE SUBJECT MATTER
6 AGAIN? WE CAN GET HER BACK, IF YOU WANT TO DO THAT.

7 MR. ESCHER: LET ME TRY IT THIS WAY.

8 Q. (BY MR. ESCHER) DOCTOR RIBBENS YOU, RECALL I ASKED YOU
9 WHETHER A DISTINCT MOTION WOULD INCLUDE A CHANGE IN COLOR, AND
10 YOU RESPONDED NO, NOT UNLESS THERE WERE SOME OTHER MOTION WHICH
11 ACCOMPANIED THE CHANGE IN COLOR.

12 DO YOU RECALL THAT?

13 A. I THOUGHT YOU ASKED ME THE QUESTION IS A CHANGE IN COLOR A
14 DISTINCT MOTION. I MEAN, IT IS POSSIBLE TO HAVE A CHANGE IN
15 COLOR OCCUR AT THE SAME TIME AS A CHANGE IN MOTION. BUT THE
16 ACTUAL CHANGE IN MOTION WOULD BE DEPENDENT OF THE COLOR CHANGE,
17 I WOULD THINK.

18 MR. ESCHER: I WOULD LIKE TO HAVE THE QUESTION AND
19 ANSWER READ BACK.

20 (PAUSE IN PROCEEDINGS)

21 THE COURT: HOW FAR BACK DO YOU WANT HER TO GO?

22 MR. ESCHER: I'M SORRY FOR THE INCONVENIENCE. LAST
23 QUESTION AND ANSWER.

24 (RECORD RECORD)

25 Q. (BY MR. ESCHER) DOCTOR RIBBENS, DO YOU RECALL TESTIFYING IN

1 THE MATEL CASE?

2 A. I DO.

3 Q. I'D LIKE TO READ TO YOU NOW A QUESTION AND ANSWER OF YOURS
4 IN THAT CASE. IT IS ON PAGE 465 OF THE TRANSCRIPT OF THE MATEL
5 CASE.

6 "Q. AT THE CLOSE OF THIS MORNING'S SESSION, DOCTOR
7 RIBBENS, WE WERE TALKING ABOUT THE SUBJECT OF COLOR
8 CHANGE OF THE HITTING SPOT OR A HIT SPOT.

9 "I WANT TO ASK YOU IF YOU CONTEND THAT A COLOR CHANGE
10 OF A HITTING SPOT OR A HIT SPOT BY ITSELF CONSTITUTES
11 DISTINCT MOTION AS CONTEMPLATED IN THE ASSERTED CLAIMS
12 OF THE 507 PATENT?

13 "A. I THINK IT DOES, YES."

14 DOCTOR RIBBENS, DO YOU RECALL THAT TESTIMONY IN THE
15 MATEL CASE.

16 MR. ANDERSON: I OBJECT IN THAT I THINK IT IS A
17 QUESTION AND ANSWER TAKEN OUT OF CONTEXT.

18 THE COURT: IT IS SPECIFIC ENOUGH. I WILL LET HIM
19 ANSWER. IF YOU WANT TO ADD CONTEXT, I WILL GIVE YOU A FEW
20 MOMENTS.

21 THE WITNESS: I DO RECALL THAT TESTIMONY.

22 Q. (BY MR. ESCHER) DID YOU CONSIDER THAT ANSWER TO BE CORRECT
23 AT THE TIME YOU MADE THAT ANSWER IN THE MATEL CASE?

24 A. I THOUGHT I WAS ANSWERING A DIFFERENT QUESTION.

25 Q. SO YOU DON'T AGREE WITH THAT ANSWER IN THE MATEL CASE?

1 A. I DON'T AGREE THAT A SIMPLE COLOR CHANGE BY ITSELF
2 CONSTITUTES A DISTINCT MOTION, THAT'S CORRECT.

3 Q. DOCTOR RIBBENS, ISN'T IT TRUE THAT OVER THE LAST 15 TO 20
4 YEARS THERE HAS BEEN A DRASTIC REDUCTION IN THE SIZE AND THE
5 COST OF ELECTRONIC DEVICES SUCH AS COMPUTERS?

6 A. YES. I HAVE TESTIFIED TO THAT.

7 Q. ISN'T IT ALSO TRUE A DEVICE LIKE THE PDP-1 COMPUTER WHICH
8 PLAYED SPACEWAR AND WHICH WAS THE SIZE OF TWO REFRIGERATORS,
9 APPROXIMATELY, IS COMPARABLE IN CAPACITY AND COMPETENCE TO A
10 MODERN PERSONAL COMPUTER WHICH IS A MERE FRACTION OF ITS SIZE
11 AND EXPENSE?

12 A. MIGHT EVEN HAVE LESS CAPABILITY, DEPENDING ON WHICH SYSTEM
13 YOU'RE TALKING ABOUT.

14 Q. THE PDP-1 WOULD HAVE LESS CAPABILITY?

15 A. I AM NOT ALL THAT FAMILIAR WITH IT. I HAVE A ROUGH IDEA OF
16 WHAT ITS CAPABILITIES WERE.

17 Q. WAS THE ANSWER YES?

18 A. THEY ARE COMPARABLE. WHAT I WAS ADDING TO THAT WAS THERE
19 COULD BE, UPON STUDY, THE PDP HAD LESS CAPABILITY THAN A MODERN
20 MICROCOMPUTER COMPUTER. I WOULD HAVE TO STUDY THEM TO BE SURE.
21 IT WOULDN'T SURPRISE ME TO FIND IT HAD LESS CAPABILITY.

22 Q. THE PDP-1 WAS SUBSTANTIALLY MORE EXPENSIVE THAN A MODERN
23 PERSONAL COMPUTER?

24 A. MUCH MORE EXPENSIVE, THAT'S CORRECT.

25 Q. DOCTOR RIBBENS, I WOULD LIKE TO DISCUSS NOW THE 4-BIT BINARY

1 COUNTER CIRCUIT YOU DISCUSSED YESTERDAY. THIS WAS ABOUT PAGE 17
2 OF THE TRANSCRIPT OF YESTERDAY'S TESTIMONY. I AM GOING TO ASK
3 MR. THACKER, WHO IS ONE OF THE EXPERT WITNESSES FOR ACTIVISION,
4 TO DRAW THE SHAPE OF THE ACTUAL WAIVEFORMS GENERATED BY THAT
5 4-BIT BINARY COUNTER AND ASK IF YOU WOULD AGREE THAT WOULD BE
6 THE WAIVEFORM OUTPUT OF THE 4-BIT BINARY COUNTER.

7 MR. ESCHER: YOUR HONOR, ARE YOU ABLE TO READ THIS AT
8 THIS LEVEL?

9 THE COURT: YES.

10 Q. (BY MR. ESCHER) DOCTOR RIBBENS, DO YOU UNDERSTAND THE CHART
11 WHICH MR. THACKER HAS JUST CREATED FOR US?

12 A. YES, I DO. THAT IS AN IDEALIZED REPRESENTATION OF THE
13 VOLTAGE PATTERN THAT WOULD APPEAR ON THE VARIOUS OUTPUT
14 TERMINALS AS A FUNCTION OF TIME. IF I WERE DRAWING IT MORE
15 PRECISELY, I WOULD LABEL IT ACCESS VOLTAGE AND TIME. THAT WAS
16 SUPPOSEDLY YOUR IMPLICATION OF WHAT HE WAS DRAWING, CORRECT?

17 Q. YES. THERE IS NO SAWTOOTH WAIVEFORM IN THIS CHART, IS
18 THERE?

19 A. THAT IS NOT A SAWTOOTH WAIVEFORM. THAT IS A SET OF OUTPUTS
20 FOR THE FOUR INDIVIDUAL BITS OF A 4-BIT BINARY COUNTER.

21 Q. TURNING TO THE DIGITAL COUNTING GRAPH WHICH YOU CREATED
22 YESTERDAY MORNING, DO YOU RECALL THAT?

23 A. YES.

24 Q. ISN'T IT TRUE THERE IS NO SUCH DIGITAL RAMP WAIVEFORM
25 GENERATED IN THE ATARI 2600?

1 A. IT DOES NOT GENERATE A SPECIFIC ANALOG RAMP, THAT IS TRUE,
2 NOR DID I SUGGEST THE COUNTER GENERATES.

3 IF YOU WILL RECALL MY PLOTTING THE ORDINATE WAS THE
4 NUMBER THAT IS TO BE INTERPRETED BY THE BINARY BITS.

5 Q. DOCTOR RIBBENS, ISN'T IT TRUE THAT NO SUCH DIGITAL RAMP
6 EXISTS IN ANY FORM IN THE ACCUSED ACTIVISION READ ONLY MEMORY
7 CARTRIDGES?

8 A. TO THE BEST OF MY KNOWLEDGE, THERE IS NO DIGITAL RAMP,
9 THAT'S CORRECT.

10 Q. AND THAT THE DIGITAL RAMP THAT YOU CREATED, THE CHART, WOULD
11 NOT ITSELF BE THE SOURCE OF SPOT GENERATION BUT RATHER DESCRIBES
12 ONLY THE TIMING OF THE ACTUAL SPOT GENERATION, ISN'T THAT RIGHT?

13 A. BUT THE CRITICAL ISSUE---

14 Q. CAN YOU ANSWER THAT QUESTION FIRST, PLEASE?

15 A. MAY I HAVE THE QUESTION AGAIN?

16 (RECORD READ)

17

18 THE WITNESS: I DON'T THINK THE QUESTION ITSELF---

19 Q. (BY MR. ESCHER) ARE YOU UNABLE TO ANSWER THE QUESTION?

20 A. NO. THE QUESTION IS AMBIGUOUS.

21 MR. GLICK: MAY WE CONFER FOR A MOMENT, PLEASE?

22 (PAUSE IN PROCEEDINGS)

23 Q. (BY MR. ESCHER) DOCTOR, I THINK I JUST HAVE ONE MORE
24 QUESTION FOR YOU.. ISN'T IT TRUE THAT THE SPIEGEL PATENT, THE
25 BAER PATENT AND THE GENERAL ELECTRIC-NASA SCENE GENERATOR ALSO

1 SPECIFICALLY TEACH THE GENERATION OF SPOTS ON CATHODE RAY TUBE
2 DEVICES IN TIMED RELATION TO THE HORIZONTAL AND VERTICLE
3 SYNCHRONIZATION PULSES?

4 A. IT IS MY RECOLLECTION IN READING THOSE PATENTS THAT THEY ALL
5 DESCRIBE THE GENERATION OF SYMBOLS ON TELEVISION RECEIVERS WHICH
6 INVOLVE RASTER SCAN.

7 Q. SO THE ANSWER TO MY QUESTION IS YES?

8 A. I THINK IT IS.

9 MAY I HAVE IT BACK AGAIN TO BE SURE?

10 (RECORD READ)

11 THE WITNESS: I THINK THAT IS TRUE, UNLESS I HAVE A
12 MISUNDERSTANDING OF THE TERM "TEACH."

13 MR. ESCHER: I HAVE NO FURTHER QUESTIONS FOR DOCTOR
14 RIBBENS AT THIS TIME. THANK YOU, DOCTOR RIBBENS.

15 THE COURT: ANY REDIRECT?

16 MR. ANDERSON: JUST A SMALL AMOUNT, YOUR HONOR.

17 REDIRECT EXAMINATION

18 BY MR. ANDERSON:

19 Q. FIRST, DOCTOR RIBBENS, ACCORDING TO MY NOTES THIS MORNING,
20 MR. ESCHER ASKED YOU WHETHER IT WASN'T TRUE THAT YOU MUST HAVE
21 HORIZONTAL AND VERTICLE SYNC SIGNALS IN THE OPERATION OF
22 TELEVISION RECEIVERS OR OTHER CATHODE RAY TUBE DEVICES. YOU
23 ANSWERED, IF MY NOTES ARE RIGHT, YES TO THAT.

24 DID YOU UNDERSTAND THE QUESTION--- LET ME ASK YOU THAT
25 ANOTHER WAY: WHAT OTHER CATHODE RAY TUBE DEVICES OTHER THAN

1 TELEVISION REQUIRE HORIZONTAL AND VERTICLE SYNCHRONIZATION
2 SIGNALS?

3 A. WELL, ANY DISPLAY DEVICE THAT USES RASTER SCAN OR A
4 SYSTEMATIC SCANNING SCHEME. RASTER SCAN, I GUESS, IS THE BEST
5 TERM TO USE AND I DON'T THINK THAT IS AMBIGUOUS, WOULD USE
6 HORIZONTAL AND VERTICLE SYNCHRONIZING PULSES.

7 IT WAS MY UNDERSTANDING THAT THE PREMISE OF THAT
8 QUESTION WAS WITH RESPECT TO RASTER SCAN ONLY. CERTAINLY THERE
9 ARE OTHER CATHODE RAY TUBES, SUCH AS AN OSCILLISCOPE, WHICH
10 DOESN'T REQUIRE HORIZONTAL AND VERTICLE SYCHRONIZING PULSES.

11 Q. WITH RESPECT TO THE POINT PLOTTING SCOPES THAT WERE USED IN
12 THE EARLY COMPUTER GAME DEMONSTRATIONS THAT HAVE BEEN DISCUSSED
13 DURING THIS TRIAL, DO SUCH POINT PLOTTING SCOPES USE HORIZONTAL
14 OR VERTICLE SYNCHRONIZATION SIGNALS?

15 A. NO, THEY DO NOT. THEY USE HORIZONTAL AND VERTICLE
16 DEFLECTION SIGNALS THAT CAUSE THE BEAM TO BE DEFLECTED, AND THEN
17 THE BEAM IS SWITCHED ON AT THE PARTICULAR SPOT.

18 Q. YOU WERE ASKED TO IDENTIFY, I BELIEVE, THE PRINTOUTS OR THE
19 LISTINGS FOR THE GAMES THAT YOU HAD LOOKED AT IN PREPARING TO
20 TESTIFY. AND YOU LOOKED TO YOUR NOTES AND NAMED TEN GAMES, TEN
21 OF THE ELEVEN ACCUSED GAMES, IN RESPONSE TO THAT QUESTION. YOU
22 OMMITTED THE GAME ENDURO.

23 A. LET ME LOOK. THAT WAS AN OVERSIGHT. YOU ARE RIGHT. THAT
24 IS ALL I HAVE.

25 WAS THERE ANOTHER ONE?

1 Q. DID YOU LOOK AT THE GAME ENDURO, SEE IT PLAYED?

2 A. YES, I DID.

3 Q. DID YOU STUDY THE LISTINGS?

4 A. I DON'T HAVE A SHEET HERE FOR ENDURO. I AM NOT SURE WHAT
5 HAPPENED TO IT.

6 Q. JUST TOWARD THE END OF YOUR CROSS A FEW MINUTES AGO MR.
7 ESCHER READ TO YOU A QUESTION AND AN ANSWER AT PAGE 465 OF THE
8 RECORD OF MAGNAVOX VERSUS MATEL, WHICH WAS THE FIRST QUESTION
9 AFTER THE LUNCHEON BREAK. AND AS MR. ESCHER READ IT, IT SAYS:

10 "Q. AT THE CLOSE OF THIS MORNING'S SESSION, DOCTOR
11 RIBBENS, WE WERE TALKING ABOUT THE SUBJECT OF COLOR
12 CHANGE OF A HITTING SPOT OR A HIT SPOT."

13 DO YOU RECALL THAT?

14 A. YES, I DO.

15 Q. I'D LIKE TO READ TO YOU FROM PAGE 462 OF THE RECORD WHERE
16 YOU WERE ASKED BY COUNSEL ON CROSS-EXAMINATION:

17 "Q. DO YOU CONTEND THAT A CHANGE IN COLOR CONSTITUTES
18 A DISTINCT MOTION IN THE SENSE OF THE ASSERTED CLAIMS
19 IN THIS ACTION?

20 "A. I CLAIM THAT THE MOTIONS THAT WE HAVE SEEN
21 REPRESENTED ON HERE, WHICH INCLUDES A COLOR CHANGE,
22 INVOLVES A DISTINCT MOTION, COLOR CHANGES."

23 DO YOU REMEMBER SO TESTIFYING?

24 A. I DON'T PARTICULARLY REMEMBER IT, BUT I AM SURE THE RECORD
25 IS CORRECT.

1 Q. CAN YOU EXPLAIN THE CIRCUMSTANCES OF THE MATEL GAME THAT WAS
2 INVOLVED IN THAT PART OF YOUR TESTIMONY?

3 A. I DON'T REMEMBER SPECIFICALLY WHICH GAME THAT QUESTION WAS
4 ASKED WITH RESPECT TO. I'M SORRY. I CAN'T REMEMBER WHAT THE
5 CIRCUMSTANCES WERE EXACTLY.

6 THE QUESTION THAT WAS READ TO ME EARLIER I DO REMEMBER,
7 AND SPECIFICALLY I REMEMBER THERE WAS, AT LEAST IN MY MIND, AN
8 IMPLIED PREMISE. BECAUSE IT SEEMED TO ME I WAS BEING ASKED THE
9 SAME QUESTION I HAD BEEN ASKED EARLIER BEFORE WHATEVER BREAK IT
10 WAS.

11 Q. I'D LIKE TO ALSO READ TO YOU FROM PAGE 538, WHICH IS LATER
12 ON, OF COURSE, IN THE MATEL TRANSCRIPT.

13 MR. GLICK: WOULD YOU PAUSE FOR JUST A MOMENT, PLEASE?

14 MR. ANDERSON: CERTAINLY.

15 MR. GLICK: I BELIEVE PAGE 538 IS SEALED TRANSCRIPT
16 WHICH WAS NEVER PROVIDED TO US IN THE COURSE OF THIS ACTION.

17 MR. ANDERSON: YOUR HONOR, IT WASN'T SEALED BY US. IT
18 IS A PART OF THE RECORD.

19 THE COURT: IF YOU ARE GOING TO EXAMINE HIM, LET HIM
20 SEE THE TRANSCRIPT PAGES. THEN COUNSEL FOR THE DEFENDANT CAN
21 ADVISE WHETHER THEY WISH TO QUESTION.

22 MR. GLICK: MORE THAN THAT, WE WERE ADVISED THAT ALL
23 THIS TRANSCRIPT WAS SUBJECT TO COURT ORDER. DESPITE OUR
24 REQUEST, THERE IS A COURT ORDER BACK IN THAT COURT SAYING IT IS
25 SEALED, AND THEY CANNOT USE IT.

1 THE COURT: I DON'T KNOW THE TERMS OF THE SEAL.

2 MR. GLICK: PERHAPS YOU CAN ENLIGHTEN US AGAIN.

3 (PAUSE IN PROCEEDINGS)

4 MR. ANDERSON: PART OF THIS WAS RELEASED FOR THE
5 APPEAL. ACTIVISION COULD HAVE GONE TO COURT AND OBTAINED IT.
6 THE PARTICULAR PORTIONS THAT ARE INVOLVED HERE HAVE NOTHING TO
7 DO WITH TECHNOLOGY AT ALL.

8 THE COURT: IS IT REHABILITATION OF THE WITNESS WITH
9 RESPECT TO SOME CROSS-EXAMINATION?

10 MR. ANDERSON: THIS VERY SUBJECT. THE RELATIONSHIP OF
11 COLOR AND MOTION.

12 THE COURT: PLEASE SHOW IT TO DEFENSE COUNSEL.

13 MR. GLICK: YOUR HONOR, WE HAVE NO OBJECTION.

14 MR. ANDERSON: I AM CONFIDENT---

15 THE COURT: SHOULD THIS BE SEALED?

16 MR. ANDERSON: NO, YOUR HONOR.

17 I WILL READ FROM PAGE 538 OF THE MATEL TRANSCRIPT,
18 DOCTOR RIBBENS, STARTING AT LINE 7:

19 "Q. WOULD THE MERE CHANGE OF COLOR WITH---"

20 THIS IS ON REDIRECT.

21 "Q. WOULD THE MERE CHANGE OF COLOR WITH NOTHING ELSE
22 HAPPENING IN THE PLAY OF THE GAME BE WHAT YOU HAVE
23 DESCRIBED AS IMPARTING A DISTINCT MOTION?

24 "A. YOU MEAN IF I HAD JUST A SYMBOL ON THE SCREEN AND
25 SOMEHJOW I CHANGED ITS COLOR?

1 "Q. YES?

2 "A. NO.

3 "MR. ANDERSON: NO FURTHER QUESTIONS."

4 THEN MR. COOK ASKED, WHO WAS MAY TELLS COUNSEL:

5 "Q. DOCTOR RIBBENS, DOES THAT LAST ANSWER REPRESENT A
6 CHANGE IN YOUR TESTIMONY BETWEEN THAT WHICH YOU GAVE ON
7 YOUR CROSS-EXAMINATION CONDUCTED BY ME AND THAT WHICH
8 YOU JUST GAVE WHEN YOU TALKED TO MR. ANDERSON?

9 "A. I DON'T BELIEVE SO.

10 "MR. COOK: I WILL LET THE RECORD SPEAK FOR ITSELF,
11 YOUR HONOR. THANK YOU."

12 AT THE BOTTOM OF THAT PAGE ON REDIRECT EXAMINATION I
13 ASKED THE QUESTION:

14 "Q. MR. COOK HAS SUGGESTED THAT YOU SAID SOMETHING
15 CONTRARY TO YOUR TESTIMONY JUST NOW AND ONE OF THE
16 EARLIER SESSIONS. AND I THINK IT WAS WITH REFERENCE TO
17 THE SIGNIFICANCE OF A MERE CHANGE OF COLOR THAT YOU
18 JUST TESTIFIED IN YOUR DEFINITION WOULD NOT BE
19 IMPARTING A DISTINCT MOTION.
20 IF YOU SAID ANYTHING CONTRARY TO THAT AT ANOTHER TIME,
21 DID YOU INTEND TO SAY ANYTHING CONTRARY TO THAT, OR
22 WOULD IT HAVE BEEN A MISSTATEMENT?

23 "A. I GUESS IT WOULD HAVE BEEN A MISSTATEMENT.

24 LET ME UNEQUIVOCALLY STATE THAT IF YOU HAVE SIMPLY
25 SOMETHING IN THE BACKGROUND AND AN OBJECT WITH COLOR

1 AND ALL YOU DO IS CHANGE THE COLOR, I CERTAINLY DON'T
2 MEAN THAT AS DISTINCT MOTION. A DISTINCT MOTION HAS TO
3 BE CONDUCTED WITH RESPECT TO A GAME. THAT'S SIMPLY
4 DISPLAYED SYMBOL.

5 "Q. BY DISTINCT MOTION, IT IS THIS CHANGE OF MOTION
6 THAT IS PERCEIVABLE YOU TESTIFIED ABOUT?

7 "A. CLEARLY, IT HAS TO BE."

8 MR. ESCHER: IF WE WERE THERE, WE WOULD HAVE OBJECTED
9 TO THAT LINE OF QUESTIONING AS BEING LEADING IN THE EXTREME.

10 THE COURT: I GOT CONFUSED AS TO THE TESTIMONY. IF YOU
11 HAVE A HITTING SPOT AND A HIT SPOT AND UPON THE CONCURRENCE OF
12 THOSE TWO THINGS ONE OF THE SPOTS, EITHER THE HITTING OR HIT
13 SPOT, DOES NOTHING MORE THAN CHANGE COLOR, IS THAT DISTINCT
14 MOTION?

15 THE WITNESS: NO, IT IS NOT. IT WOULD HAVE TO CONTINUE
16 ITS MOTION PAST THE OTHER SYMBOL WITHOUT A CHANGE IN MOTION. IF
17 YOU ARE SAYING IT IS JUST A CHANGE IN COLOR, THAT IMPLIES TO ME
18 IT WOULD CONTINUE ITS MOTION, CHANGE COLOR AND CONTINUE ON. I
19 WOULD NOT INTERPRET THAT AS A DISTINCT MOTION.

20 THE COURT: WOULD OR WOULD NOT?

21 THE WITNESS: WOULD NOT.

22 MR. ANDERSON: THAT IS ALL.

23 THE COURT: ANY RECROSS?

24 MR. ESCHER: NO, YOUR HONOR, I DON'T HAVE ANY
25 QUESTIONS.