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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

APPLE, INC.,) C-11-01846-LHK
)
PLAINTIFF,) JANUARY 17, 2012
)
V.)
)
SAMSUNG ELECTRONICS) PAGES 1 - 139
COMPANY, LTD., ET AL.,)
)
DEFENDANTS.)
-----)

THE PROCEEDINGS WERE HELD BEFORE
THE HONORABLE UNITED STATES DISTRICT
JUDGE LUCY H. KOH

A P P E A R A N C E S:

FOR THE PLAINTIFF: MORRISON & FOERSTER
BY: HAROLD J. MCELHINNY
DEOK KEUN MATTHEW AHN
425 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94105

WILMER, CUTLER, PICKERING, HALE
AND DORR
BY: DAVID B. BASSETT
399 PARK AVENUE
NEW YORK, NEW YORK 10022

(APPEARANCES CONTINUED ON THE NEXT PAGE.)

OFFICIAL COURT REPORTER: IRENE RODRIGUEZ, CSR, CRR
CERTIFICATE NUMBER 8074

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A P P E A R A N C E S : (CONT'D)

FOR THE DEFENDANTS: QUINN, EMANUEL, URQUHART &
SULLIVAN
BY: CHARLES VERHOEVEN
KEVIN P.B. JOHNSON
TODD M. BRIGGS
VICTORIA F. MAROULIS
555 TWIN DOLPHIN DRIVE
5TH FLOOR
REDWOOD SHORES, CALIFORNIA 94065

ALSO PRESENT: UNIVERSITY OF TORONTO
DEPARTMENT OF COMPUTER SCIENCE
BY: RAVIN BALAKRISHNAN
40 ST. GEORGE STREET, ROOM 5270
TORONTO, ONTARIO CANADA M5S 2E4

1 SAN JOSE, CALIFORNIA

JANUARY 17, 2012

2 P R O C E E D I N G S

3
4 (WHEREUPON, COURT CONVENEED AND THE
13:29:08 5 FOLLOWING PROCEEDINGS WERE HELD:)

13:33:34 6 THE CLERK: CALLING CASE NUMBER
13:33:38 7 C-11-01846-LHK, APPLE, INCORPORATED, VERSUS SAMSUNG
13:33:43 8 ELECTRONICS COMPANY LIMITED, ET AL.

13:33:45 9 COUNSEL, STATE YOUR APPEARANCES, PLEASE.

13:33:47 10 MR. MCELHINNY: GOOD AFTERNOON, YOUR
13:33:48 11 HONOR. FOR APPLE IT'S HAROLD MCELHINNY OF MORRISON
13:33:53 12 & FOERSTER; AND WITH ME AT COUNSEL TABLE IS DAVID
13:33:56 13 BASSETT FROM THE WILMER HALE FIRM; AND OUR EXPERT,
13:33:59 14 DR. RAVIN BALAKRISHNAN; AND MATT ANH FROM MORRISON
13:34:06 15 & FOERSTER.

13:34:09 16 THE COURT: GOOD AFTERNOON.

13:34:13 17 MR. VERHOEVEN: I'M HERE. GOOD
13:34:19 18 AFTERNOON, YOUR HONOR. CHARLES VERHOEVEN
13:34:21 19 REPRESENTING SAMSUNG. WITH ME AT COUNSEL TABLE ARE
13:34:26 20 MY PARTNERS KEVIN JOHNSON --

13:34:30 21 MR. JOHNSON: GOOD AFTERNOON, YOUR HONOR.

13:34:31 22 THE COURT: GOOD AFTERNOON.

13:34:33 23 MR. VERHOEVEN: -- VICTORIA MAROULIS AND
13:34:38 24 TODD BRIGGS, AND WE HAVE SEVERAL REPRESENTATIVES OF
13:34:40 25 SAMSUNG IN THE COURTROOM, YOUR HONOR. I'M NOT

13:34:42 1 GOING TO LIST THEM ALL. I WOULD JUST MENTION WE
13:34:45 2 HAVE SENIOR VICE PRESIDENT MINH YOUNG CHUNG IS
13:34:49 3 HERE.

13:34:49 4 THE COURT: GOOD AFTERNOON.

13:34:52 5 MR. VERHOEVEN: WE ALSO HAVE EXPERT
13:34:54 6 DR. WESEL, WHO WILL BE MAKING SOME OF OUR
13:34:56 7 PRESENTATION TODAY. HE'S RIGHT THERE.

13:34:57 8 THE COURT: OKAY. GOOD AFTERNOON.

13:35:08 9 LET ME JUST ASK SOME BACKGROUND
13:35:10 10 QUESTIONS, AND, THAT IS, HOW DID YOU COME UPON THE
13:35:13 11 TEN TERMS TO CONSTRUE? DID EACH SIDE JUST PICK
13:35:16 12 FIVE, OR WHAT WAS THAT?

13:35:21 13 MR. MCELHINNY: I BELIEVE WE STARTED WITH
13:35:23 14 EACH SIDE PICKING FIVE AND THEN THERE WAS A
13:35:26 15 NEGOTIATION.

13:35:27 16 THE COURT: ALL RIGHT. AND ARE ANY OF
13:35:28 17 THESE -- I GUESS THERE ARE ONLY NINE TO BE
13:35:31 18 CONSTRUED. ARE ANY OF THESE EITHER CLAIM OR CASE
13:35:34 19 DISPOSITIVE?

13:35:35 20 MR. MCELHINNY: I BELIEVE SOME OF THEM
13:35:36 21 ARE AND SOME OF THEM ARE NOT.

13:35:42 22 THE COURT: ALL RIGHT. WHICH ONES ARE
13:35:44 23 AND DO YOU AGREE ON WHICH ONES THOSE ARE?

13:36:33 24 (PAUSE IN PROCEEDINGS.)

13:36:52 25 MR. MCELHINNY: AT LEAST OUR VIEW, YOUR

13:36:53 1 HONOR, IS THAT ON THE DEFENSIVE SIDE, THE
13:36:57 2 INTERPRETATION OF APPLLET WOULD BE CASE DISPOSITIVE
13:37:03 3 ON THAT PATENT.

13:37:05 4 THE COURT: ON THE '711?

13:37:09 5 MR. MCELHINNY: YES, YOUR HONOR.

13:37:09 6 THE COURT: OKAY.

13:37:10 7 MR. MCELHINNY: IN OUR VIEW IT'S HARD TO
13:37:11 8 SAY WHETHER ANY OF THE ONES THAT YOU'RE CONSTRUING
13:37:14 9 ON OUR PATENTS WOULD BE ISSUE DISPOSITIVE GIVEN THE
13:37:17 10 DOCTRINE OF EQUIVALENTS ISSUES.

13:37:19 11 THE COURT: OKAY. AND LET ME ASK IF YOU
13:37:21 12 ALL AGREE WITH THAT?

13:37:24 13 MR. JOHNSON: WE WOULD DISAGREE WITH
13:37:26 14 RESPECT TO APPLLET.

13:37:28 15 THE COURT: OKAY.

13:37:31 16 MR. JOHNSON: THAT IT'S NECESSARILY CASE
13:37:33 17 DISPOSITIVE.

13:37:34 18 THE COURT: OKAY.

13:37:36 19 MR. JOHNSON: WE DO BELIEVE THAT ON THE
13:37:39 20 APPLE PATENTS, THE FOLLOWING PATENTS, THE
13:37:43 21 CONSTRUCTION FOR THE TERMS IN THE FOLLOWING PATENTS
13:37:45 22 WOULD BE CASE DISPOSITIVE: THE '002 PATENT, THE
13:37:51 23 '891 PATENT, THE '607 PATENT WITH RESPECT TO
13:37:54 24 CERTAIN CLAIMS, THE '828 PATENT, AND THEN THE '381,
13:38:03 25 AND THE '915 PATENT.

13:38:06 1 THE COURT: ALL RIGHT. WELL, ON THE
13:38:09 2 '891, ARE YOU SAYING BOTH STARTING THE TIMER AND
13:38:12 3 THE FIRST WINDOW HAS BEEN DISPLAYED IN THE
13:38:17 4 POSITION OF THE CURSOR ON THE SCREEN OR JUST ONE?

13:38:19 5 MR. JOHNSON: JUST ONE.

13:38:20 6 THE COURT: WHICH ONE?

13:38:21 7 MR. JOHNSON: JUST THE ONE WITH RESPECT
13:38:22 8 TO THE CURSOR.

13:38:23 9 THE COURT: OKAY. OKAY. AND ON THE
13:38:32 10 '828 PIXEL OR MATHEMATICALLY FITTING AN ELLIPSE,
13:38:37 11 WHICH ONE? OR BOTH?

13:38:39 12 MR. JOHNSON: BOTH.

13:38:40 13 THE COURT: OKAY.

13:39:01 14 I ASSUME YOU DISAGREE WITH THAT OR DO
13:39:03 15 YOU -- DO YOU AGREE WITH IT?

13:39:05 16 MR. MCELHINNY: WELL, IN GENERAL WE
13:39:06 17 DISAGREE WITH IT, YOUR HONOR, BUT OBVIOUSLY IT
13:39:09 18 DEPENDS ON WHAT THE INTERPRETATION ENDS UP BEING.

13:39:11 19 THE COURT: OKAY. HOW MANY TERMS DID
13:39:23 20 EACH SIDE ORIGINALLY PROPOSE NEEDED CONSTRUCTION?
13:39:30 21 DO YOU RECALL?

13:39:31 22 MR. MCELHINNY: I'M TRYING TO RECALL WHAT
13:39:32 23 I WAS TOLD. I BELIEVE THAT SAMSUNG STARTED WITH
13:39:35 24 ABOUT 200, AND I THINK WE STARTED WITH
13:39:37 25 APPROXIMATELY 15. THAT'S MY -- THAT'S FOURTH-HAND

13:39:42 1 KNOWLEDGE, YOUR HONOR.

13:39:43 2 THE COURT: OKAY.

13:39:46 3 MR. JOHNSON: YOUR HONOR, I THINK IT WAS
13:39:48 4 ACTUALLY LESS THAN THAT THAT WE STARTED WITH. WE
13:39:50 5 STARTED WITH SOMEWHERE AROUND 70 OR 80 AND THEN
13:39:53 6 NARROWED IT DOWN PRETTY QUICKLY ACTUALLY DURING THE
13:39:57 7 MEET AND CONFER PROCESS.

13:40:05 8 THE COURT: AND I GUESS I SHOULD ASK YOU
13:40:07 9 WHEN YOU SAY IT IS DISPOSITIVE, IS IT DISPOSITIVE
13:40:10 10 OF THE PATENT OR OF JUST THAT CLAIM?

13:40:12 11 MR. JOHNSON: OF THE ASSERTED CLAIMS
13:40:14 12 OF -- SO OUR VIEW IS THAT I THINK IF WE, IF WE
13:40:19 13 BROKE IT DOWN, IT MAY BE DISPOSITIVE AS TO THE
13:40:22 14 WHOLE PATENT BUT IN TERMS OF THE WAY THE PATENT HAS
13:40:27 15 BEEN ASSERTED IN THE CASE, WE BELIEVE THAT
13:40:29 16 CONSTRUING THE CLAIMS THAT I JUST GAVE YOU FOR
13:40:31 17 THOSE PATENTS WOULD, IF WE WIN ON OUR
13:40:34 18 CONSTRUCTIONS, THAT PATENT GOES AWAY.

13:40:42 19 THE COURT: OKAY. HOW HAVE YOU ALL
13:40:44 20 DECIDED THE TRIAL WOULD PROCEED? ARE YOU JUST
13:40:49 21 GOING TO PICK SOME SUBSET OF THE CLAIMS THAT ARE
13:40:53 22 BEING PRESENTED FOR CONSTRUCTION, OR WHAT DID YOU
13:40:57 23 HAVE IN MIND?

13:40:59 24 MR. MCELHINNY: THAT I THINK AT LEAST
13:41:02 25 FROM MY PERSPECTIVE, YOUR HONOR, I WAS HOPING THAT

13:41:04 1 THAT WOULD BE A SUBJECT OF ADDITIONAL DIALOGUE WITH
13:41:07 2 THE COURT.

13:41:08 3 AS YOU WILL RECALL, OUR ORIGINAL POSITION
13:41:11 4 WAS THAT THE CASES SHOULD BE SEVERED AND THAT
13:41:15 5 APPLE'S CASE SHOULD GO FIRST.

13:41:17 6 FRANKLY, WE THINK THAT THERE HAS TO BE --
13:41:24 7 WE THINK AS CURRENTLY PUT TOGETHER, THIS CASE IS
13:41:26 8 PROBABLY TOO LARGE TO TRY TO A JURY.

13:41:36 9 BUT WE SORT OF THOUGHT WE WERE GOING TO
13:41:39 10 GO THROUGH THE CLAIM CONSTRUCTION AND MAYBE SUMMARY
13:41:41 11 JUDGMENT AND SEE WHAT WAS LEFT AND THEN HAVE A
13:41:42 12 DIALOGUE AND THEN WHATEVER TIME YOUR HONOR WANTS TO
13:41:46 13 HAVE IT AND INCLUDING NOW.

13:41:47 14 THE COURT: THIS IS JUST TENTATIVE?

13:41:48 15 MR. MCELHINNY: RIGHT.

13:41:49 16 THE COURT: YOU DON'T HAVE A CLAIM
13:41:50 17 CONSTRUCTION YET SO I'M NOT MAKING YOU PICK IN THE
13:41:54 18 ABSTRACT. I WAS JUST SORT OF WONDERING IF YOU WERE
13:41:58 19 STARTING TO ENVISION.

13:41:59 20 MR. MCELHINNY: TO BE CLEAR, I MEAN, THIS
13:42:00 21 IS ALL FRESH IN MY MIND AND CLEARLY ONE OF YOUR
13:42:03 22 CASES.

13:42:05 23 OUR POSITION ORIGINALLY WAS THAT WE HAD
13:42:08 24 FILED IN OUR COMPLAINT A SET OF PATENTS THAT HAVE
13:42:11 25 AN INTERNAL RELATIONSHIP BECAUSE THEY ALL RELATE TO

13:42:17 1 WHAT THE IPHONE AND IPAD, HOW THEY PRESENT TO THE
13:42:20 2 USER AND THERE'S A CONSISTENCY THERE.

13:42:22 3 OUR POSITION IS THAT SAMSUNG, AS YOU
13:42:24 4 RECALL, THEY ORIGINALLY FILED THEIR OWN COMPLAINT.
13:42:27 5 THEY THEN DISMISSED THAT AND THEN BROUGHT IN A
13:42:29 6 COUNTERCLAIM WITH A LARGE NUMBER OF PATENTS, MOST
13:42:32 7 OF WHICH ARE RELATED TO STANDARDS RELATED WHICH
13:42:36 8 THEN BROUGHT IN THE DEFENSES THAT DEAL WITH
13:42:40 9 STANDARDS RELATED BOTH IN TERMS OF ANTITRUST
13:42:45 10 PROBLEMS AND UNFAIR COMPETITION ISSUES.

13:42:47 11 THE COURT: UH-HUH.

13:42:47 12 MR. MCELHINNY: WE CONTINUED TO BELIEVE
13:42:49 13 THAT THE RIGHT WAY TO TRY THIS IS TWO CASES, YOU
13:42:53 14 KNOW, ONE AFTER THE OTHER AND WHATEVER TIMING.

13:42:58 15 BUT WE DO THINK THAT THE SUBSET, BECAUSE
13:43:00 16 WE PICK DESIGN PATENTS AND USER INTERFACE PATENTS,
13:43:04 17 THAT THERE'S AN INFINITEGRITY TO THAT THAT A JURY
13:43:08 18 CAN UNDERSTAND THAT THE INSTRUCTIONS ALL HOLD
13:43:11 19 TOGETHER AND IT'S A TRIABLE CASE. AND THAT IS
13:43:13 20 STRONGLY OUR PREFERENCE.

13:43:17 21 THE COURT: OKAY.

13:43:18 22 MR. VERHOEVEN: YOUR HONOR, CHARLES
13:43:20 23 VERHOEVEN. THAT REQUEST WAS MADE AND MY
13:43:23 24 RECOLLECTION WAS THAT YOUR HONOR DENIED THAT
13:43:25 25 REQUEST AND INDICATED THAT THE TWO CASES WOULD BE

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13:43:55 11
13:43:58 12
13:44:01 13
13:44:02 14
13:44:05 15
13:44:10 16
13:44:13 17
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TRIED TOGETHER.

IT WOULD CERTAINLY BE VERY PREJUDICIAL TO MY CLIENT TO SEVER OFF OUR CLAIMS AND TRY THEM AT A LATER DATE.

MY SUGGESTION, YOUR HONOR, AND THIS IS WHAT I'VE SEEN DONE, FOR EXAMPLE, THIS IS WHAT IS HAPPENING IN FRONT OF JUDGE POSNER WHO IS SITTING BY DESIGNATION IN APPLE VERSUS MOTOROLA IN ILLINOIS IS THERE ARE OVER 20 PATENTS AND HE TELLS THE PARTY YOU HAVE TO PICK AND YOU HAVE TO NARROW AND GO AND NEGOTIATE WITH EACH OTHER AND HERE'S HOW MUCH TIME YOU'RE GOING TO GET, FIGURE IT OUT. IF YOU DON'T FIGURE IT OUT, THEN I WILL.

BUT HERE'S HOW MUCH TIME YOU'RE GOING TO HAVE AND YOU HAVE THAT MUCH TIME. AND, YOU KNOW, YOU NEED TO NARROW THE PATENTS DOWN AND MAKE A PROPOSAL.

I'M NOT SUGGESTING THAT YOUR HONOR ASK US TO DO THAT NOW, BUT I THINK THAT'S PROBABLY THE BEST PROCEDURE AT SOME POINT DOWN THE ROAD AS WE GET CLOSER TO TRIAL.

THE COURT: OKAY.

MR. MCELHINNY: THE PROBLEM WITH THAT IN THIS CONTEXT, YOUR HONOR, IS ONCE YOU BRING IN STANDARDS RELATED PATENTS, YOU BRING IN THE FULL

13:44:42 1 PANOPLY OF DEFENSES .

13:44:43 2 YOU HAVE DIFFERENT DAMAGES MEASURES, YOU
13:44:46 3 HAVE THE ANTITRUST ISSUES, AND YOU HAVE THE UNFAIR
13:44:51 4 COMPETITION ISSUES AND THOSE CANNOT GET SEVERED
13:44:54 5 OBVIOUSLY FROM THE LEGITIMACY AND THE VALIDITY OF
13:44:57 6 THE PATENT ITSELF THAT IS BEING ASSERTED.

13:44:59 7 MR. VERHOEVEN: YOUR HONOR, THOSE ARE
13:45:01 8 REMEDY ISSUES AND MANY OF WHICH THAT ARE EQUITABLE
13:45:04 9 AND THE WAY THAT JUDGE POSNER DEALT WITH THE SAME
13:45:06 10 ARGUMENTS THAT WERE ADVANCED IS HE SAID HE WOULD
13:45:08 11 SEVER THOSE OFF AND HAVE THE TRIAL JUST ON THE
13:45:10 12 PATENTS AS THE FIRST PHASE.

13:45:11 13 SO WE'VE BROUGHT OUR PATENT CLAIMS.
13:45:17 14 WE'RE ENTITLED TO HAVE THOSE CLAIMS HEARD IN A
13:45:19 15 TIMELY MANNER AND YOUR HONOR HAS ALREADY SAID THAT
13:45:23 16 THE TWO, THE TWO SETS OF PATENT CLAIMS ARE GOING TO
13:45:26 17 BE TRIED TOGETHER. AND IT WOULD BE INCREDIBLY
13:45:30 18 PREJUDICIAL TO LOP OFF OUR SIDE OF THE CASE AND TRY
13:45:33 19 THEIR SIDE OF THE CASE FIRST FOR OBVIOUS REASONS.

13:45:36 20 AND SO WE WOULD URGE THAT IF ANYTHING
13:45:38 21 GETS SEVERED, IT WOULD BE THE EQUITABLE DEFENSES
13:45:41 22 THAT THEY'RE RAISING, WHICH PROBABLY THEY'RE NOT
13:45:44 23 ENTITLED TO A JURY IN THE FIRST PLACE AND THERE ARE
13:45:47 24 REMEDY ISSUES, YOUR HONOR, AND THE PATENT CLAIMS
13:45:50 25 SHOULD BE KEPT TOGETHER AND THEIR PARITY SHOULD BE

13:45:56 1 PRESERVED SO THAT BOTH SIDES HAVE AN EQUAL AMOUNT
13:45:58 2 OF CLAIMS THAT THEY ARE ENTITLED TO BRING.

13:46:03 3 THE COURT: WELL, WE DON'T HAVE TO DECIDE
13:46:05 4 THIS RIGHT NOW. I JUST WANT TO GET SOME SENSE OF
13:46:07 5 WHAT YOU'RE THINKING CURRENTLY.

13:46:08 6 MR. MCELHINNY: OBVIOUSLY, JUST THE -- I
13:46:11 7 DON'T SEE THE PREJUDICE ISSUE. I MEAN, IF YOU'RE
13:46:13 8 TRYING THESE CASES BACK TO BACK, YOU HAVE VERDICTS
13:46:18 9 WITHIN WEEKS OF EACH OTHER. THERE'S -- THE
13:46:22 10 POST-TRIAL TIMING ON INJUNCTIVE RELIEF -- I MEAN, I
13:46:25 11 JUST DON'T SEE THE PREJUDICE ISSUE OF PRESENTING
13:46:27 12 TWO COHERENT CASES, SEPARATE CASES TO JURIES THAT
13:46:31 13 THEY CAN UNDERSTAND.

13:46:33 14 MR. VERHOEVEN: ONE SENTENCE, AND I'LL
13:46:35 15 SIT DOWN.

13:46:35 16 THE COURT: PLEASE.

13:46:36 17 MR. VERHOEVEN: IF THERE'S NO PREJUDICE,
13:46:37 18 YOUR HONOR, THEN WE SHOULD GO FIRST.

13:46:39 19 THE COURT: WELL, THAT'S NOT HAPPENING.
13:46:42 20 OKAY. LET'S GO TO THE MOTION TO STRIKE.

13:46:48 21 I'M NOT GOING TO STRIKE -- LET ME MAKE
13:46:56 22 SURE I UNDERSTAND THIS. YOU HAD AN AGREEMENT THAT
13:46:59 23 THE EXPERT REPORTS WOULD BE DISCLOSED IN THE WAY
13:47:09 24 THAT SAMSUNG REPRESENTS, BUT I DON'T BELIEVE YOU
13:47:12 25 HAD AN AGREEMENT TO IGNORE THE PATENT LOCAL RULES

13:47:17 1 AS TO WHEN EXTRINSIC EVIDENCE SHOULD BE EXCHANGED.
13:47:21 2 IS THAT CORRECT?
13:47:22 3 MR. MCELHINNY: THAT'S CORRECT, YOUR
13:47:23 4 HONOR.
13:47:23 5 THE COURT: OKAY. I THOUGHT THAT WAS A
13:47:25 6 LITTLE BIT NOT ACCURATELY REPRESENTED IN SAMSUNG'S
13:47:34 7 OPPOSITION.
13:47:35 8 ARE YOU CLAIMING THAT YOU HAD AN
13:47:36 9 AGREEMENT THAT YOU WOULDN'T GIVE YOUR EXTRINSIC
13:47:39 10 EVIDENCE UNTIL AFTER APPLE HAD SERVED ITS EXPERT
13:47:45 11 DECLARATION BECAUSE I FIND THAT --
13:47:54 12 MR. BRIGGS: NO, YOUR HONOR. TODD
13:47:56 13 BRIGGS.
13:47:56 14 YOUR HONOR, OUR AGREEMENT WAS THAT -- WE
13:48:00 15 DID HAVE AN AGREEMENT THAT WE WOULD EXCHANGE
13:48:04 16 EXTRINSIC EVIDENCE LATER.
13:48:05 17 WE HAD AN AGREEMENT THAT THE EXPERTS
13:48:07 18 WOULD SUBMIT THEIR DECLARATIONS AFTER WE DID THE
13:48:12 19 PRELIMINARY EXCHANGE OF EXTRINSIC EVIDENCE.
13:48:15 20 AND WE RECEIVED THEIR EXPERT
13:48:17 21 DECLARATION --
13:48:17 22 THE COURT: SO THEN WHAT -- THEN WEREN'T
13:48:21 23 YOU REQUIRED UNDER THE PATENT LOCAL RULES TO
13:48:23 24 EXCHANGE YOUR EXTRINSIC EVIDENCE EARLIER THAN YOU
13:48:29 25 DID?

13:48:29 1 I JUST FIND IT HARD TO BELIEVE THAT YOU
13:48:31 2 WOULDN'T HAVE TO GIVE YOUR EXTRINSIC EVIDENCE
13:48:33 3 ACCORDING TO THE DEADLINE PROVIDED IN THE PATENT
13:48:36 4 LOCAL RULES AND THERE WAS NO EXPLICIT AGREEMENT TO
13:48:38 5 UNDUE OR CIRCUMVENT THE PATENT RULES. SO GO AHEAD.

13:48:44 6 MR. BRIGGS: THAT'S CORRECT, BUT WHAT WE
13:48:45 7 RECEIVED IS ADDITIONAL EXTRINSIC EVIDENCE FROM
13:48:47 8 APPLE ON THE NIGHT THAT WE FILED OUR JOINT CLAIM
13:48:50 9 CONSTRUCTION STATEMENT IN THE FORM OF THEIR
13:48:52 10 EXPERT'S DECLARATION.

13:48:53 11 AND AT THAT POINT THAT WAS BRAND NEW
13:48:57 12 EXTRINSIC EVIDENCE THAT WE RECEIVED FOR THE FIRST
13:49:00 13 TIME AT THAT POINT.

13:49:00 14 AND OUR EXPERT THEN READ THAT DECLARATION
13:49:06 15 AND THERE WAS NEW MATERIAL IN THERE THAT WAS NOT IN
13:49:10 16 THEIR INITIAL EXTRINSIC EVIDENCE IN THE FORM OF HIS
13:49:14 17 OPINION.

13:49:14 18 AND SO HE WENT OUT AND FOUND ADDITIONAL
13:49:19 19 EXTRINSIC EVIDENCE TO REBUT THAT.

13:49:21 20 THE COURT: BUT I WOULD SUSPECT THAT WHEN
13:49:23 21 YOU EXCHANGE YOUR PRELIMINARY CLAIM CONSTRUCTIONS
13:49:28 22 YOU SAW THAT THE APPLE CONSTRUCTION WAS GOING TO
13:49:33 23 HAVE THIS SYSTEM INDEPENDENT COMPUTER PROGRAM OR
13:49:34 24 OPERATING SYSTEM INDEPENDENT LANGUAGE AND WITHIN AN
13:49:37 25 APPLICATION MODULE. SO YOU WERE ALREADY ON NOTICE

13:49:41 1 THAT YOU NEEDED TO COUNTER THAT.

13:49:45 2 MR. BRIGGS: IT WASN'T CLEAR EXACTLY
13:49:46 3 WHERE THEIR EXPERT WAS GOING TO GO WITH THAT. AND
13:49:48 4 WHAT THEIR EXPERT SAID IN HIS DECLARATION WAS THE
13:49:58 5 FACT THAT THERE ARE SOME OPERATING SYSTEM
13:50:00 6 INDEPENDENT APPLETS OUT THERE MEANS THAT THE
13:50:09 7 OPERATING SYSTEM OR THE APPLET OF THE PATENT IS
13:50:12 8 OPERATING SYSTEM INDEPENDENT.

13:50:14 9 AND WE JUST -- WE DIDN'T KNOW EXACTLY HOW
13:50:16 10 THEY WERE GOING TO USE THAT EXTRINSIC EVIDENCE AND
13:50:18 11 WHAT THEIR ARGUMENT WAS UNTIL WE RECEIVED THEIR
13:50:23 12 EXPERT'S DECLARATION.

13:50:24 13 SO HIS DECLARATION PROVIDED A NEW FORM OF
13:50:26 14 EXTRINSIC EVIDENCE --

13:50:27 15 THE COURT: I READ HIS DECLARATION. I
13:50:29 16 DON'T THINK IT REALLY ADDS MUCH MORE. I MEAN, HE
13:50:31 17 TALKS ABOUT THE OPERATING SYSTEM INDEPENDENT PRONG,
13:50:37 18 BUT YOU WERE ALREADY ON NOTICE OF THAT WHEN YOU GOT
13:50:39 19 THEIR CLAIM CONSTRUCTION THAT THAT WAS GOING TO BE
13:50:43 20 THEIR DECISION.

13:50:43 21 I GUESS I'M NOT -- I DON'T SEE WHY YOU
13:50:47 22 HAVE CAN --

13:50:53 23 MR. BRIGGS: AGAIN, YOUR HONOR, THE WAY
13:50:54 24 IN WHICH HE EXPRESSED HIS OPINION, WE DIDN'T SEE IN
13:50:59 25 THEIR DISCLOSURE OF EXTRINSIC EVIDENCE.

13:51:09 1 THE COURT: WELL, I'M LOOKING AT HIS
13:51:11 2 OPINION. OKAY. IT LOOKS LIKE THE ONLY PAGES 10
13:51:14 3 THROUGH THE TOP OF 13 IS ALL THAT HE HAS.

13:51:19 4 I GUESS -- WHAT IS A SURPRISE HERE BASED
13:51:21 5 ON THE CONSTRUCTION THAT I GAVE YOU? HE'S TRYING
13:51:24 6 TO SUPPORT OPERATING SYSTEM INDEPENDENT. THAT'S
13:51:31 7 PRETTY MUCH MOST OF WHAT HE DOES ON PAGES 10 AND
13:51:43 8 11, 12 -- SO WHAT IS THE SURPRISE HERE?

13:51:46 9 MR. BRIGGS: THE SURPRISE WAS THE WAY IN
13:51:47 10 WHICH HE WAS INTERPRETING ALL OF THESE REFERENCES.
13:51:50 11 HE SAID THAT THE EXISTENCE OF SOME OPERATING SYSTEM
13:51:54 12 INDEPENDENT APPLETS MEANS THAT, THAT ALL
13:52:01 13 OPERATING -- OR ALL APPLETS ARE OPERATING SYSTEM
13:52:04 14 INDEPENDENT.

13:52:10 15 AND WHAT MR. COLE PRESENTED IN HIS
13:52:12 16 EVIDENCE WERE COUNTER EXAMPLES OF APPLETS THAT ARE
13:52:17 17 NOT OPERATING SYSTEM INDEPENDENT, AND HE JUST
13:52:24 18 LISTED SEVERAL THAT EXIST OUT IN THE WORLD THAT ARE
13:52:28 19 OPERATING SYSTEM INDEPENDENT.

13:52:34 20 SO, YOUR HONOR, OUR POSITION IS THAT THIS
13:52:39 21 WAS NEW EXTRINSIC EVIDENCE AND THAT IN ANY EVENT
13:52:42 22 THERE IS NO PREJUDICE TO APPLE EVEN IF YOUR HONOR
13:52:44 23 WERE TO FIND THAT THIS WAS DISCLOSED LATE OR IN A
13:52:48 24 TARDY MANNER. THERE'S NO PREJUDICE TO APPLE. THEY
13:52:53 25 HAD AN OPPORTUNITY TO DEPOSE MR. COLE.

13:52:56 1 DR. GIVARGIS WAS ALSO DEPOSED AND DURING
13:52:59 2 THAT DEPOSITION HE HAD THE OPPORTUNITY TO OPINE ON
13:53:01 3 DR. COLE'S DECLARATION OR MR. COLE'S DECLARATION
13:53:05 4 AND THE EVIDENCE HE CITED IN THERE.

13:53:08 5 SO AT THE END OF THE DAY THERE'S
13:53:10 6 ABSOLUTELY NO PREJUDICE WHATSOEVER.

13:53:17 7 THE COURT: ALL RIGHT. LET ME HEAR FROM
13:53:18 8 APPLE ON THIS AND THEN WE CAN MOVE ON TO THE
13:53:21 9 TUTORIAL.

13:53:21 10 MR. MCELHINNY: I'M A LITTLE BIT
13:53:23 11 DISADVANTAGED. THIS WAS A WILMER MOTION THAT WE
13:53:25 12 THOUGHT WAS SET FOR FRIDAY, YOUR HONOR.

13:53:26 13 THE COURT: OH. YOU WANT TO HANDLE IT ON
13:53:27 14 FRIDAY?

13:53:28 15 MR. MCELHINNY: I THINK MR. LEE WILL BE
13:53:30 16 PREPARED TO HANDLE IT ON FRIDAY IF THAT'S
13:53:32 17 CONVENIENT FOR THE COURT.

13:53:33 18 THE COURT: THAT'S OKAY.

13:53:34 19 MR. MCELHINNY: THANK YOU.

13:53:39 20 THE COURT: ALL RIGHT. I DIDN'T KNOW IF
13:53:40 21 IT CAME UP OR IF YOU WANTED ME TO MAKE A RULING
13:53:43 22 BASED ON WHAT IS GOING TO BE PRESENTED AT THE
13:53:45 23 TUTORIAL.

13:53:46 24 OKAY. WELL, LET ME ASK ANOTHER QUESTION.
13:53:49 25 THERE'S ONLY A DESCRIPTION OF WHO A PERSON OF

13:53:56 1 ORDINARY SKILL IN THE ART IS IN THE COLE AND
13:53:59 2 GIVARGIS DECLARATIONS.

13:54:05 3 LET ME ASK AT LEAST AS TO THE '711
13:54:08 4 PATENT, IS THERE AN AGREEMENT? IT SEEMS LIKE THE
13:54:10 5 EXPERTS ARE BASICALLY SAYING THE SAME THING. IS
13:54:13 6 THERE AN AGREEMENT AS TO WHO A PERSON OF ORDINARY
13:54:15 7 SKILL IN THE ART WOULD BE FOR THAT PATENT?

13:54:57 8 MR. VERHOEVEN: I'M JUST CONFERRING. I
13:54:59 9 THINK THERE MAY BE AN AGREEMENT ON '711.

13:55:02 10 THE COURT: OKAY. GREAT. WHAT ABOUT FOR
13:55:04 11 THE OTHER PATENTS AS WELL? IS IT BASICALLY THE
13:55:06 12 SAME BACKGROUND A C.S. OR ENGINEERING DEGREE AND
13:55:10 13 SOME INDUSTRY EXPERIENCE AND THEN AN INVERSE
13:55:13 14 RELATIONSHIP BETWEEN WHETHER YOU HAVE AN ADVANCED
13:55:16 15 DEGREE OR LESS EXPERIENCE? OR IS IT BASICALLY THE
13:55:18 16 SAME FOR ALL OF THE PATENTS?

13:55:22 17 MR. VERHOEVEN: ONE SECOND, YOUR HONOR.

13:55:24 18 THE COURT: OKAY.

13:55:34 19 (PAUSE IN PROCEEDINGS.)

13:55:34 20 MR. VERHOEVEN: I THINK, YOUR HONOR, THAT
13:55:36 21 FOR THE UI PATENTS IT'S PRETTY MUCH THE SAME
13:55:39 22 PERSON. IT MIGHT BE A SLIGHTLY DIFFERENT PERSON
13:55:42 23 FOR THE STANDARDS PATENTS.

13:55:43 24 THE COURT: ALL RIGHT.

13:55:44 25 MR. VERHOEVEN: WHAT WE CAN DO IS ON THE

13:55:46 1 BREAK WE CAN GET A CONCISE ANSWER FOR YOU AND
13:55:48 2 FIGURE OUT WITH THE OTHER SIDE.

13:55:49 3 THE COURT: OKAY. THAT WOULD BE GREAT.

13:55:53 4 MR. VERHOEVEN: FROM THE '711 I THINK WE
13:55:55 5 CAN SAY RIGHT NOW THAT WE'RE IN AGREEMENT.

13:55:56 6 THE COURT: OKAY. TELL ME WHICH ONES DO
13:56:03 7 YOU CONSIDER THE STANDARD PATENTS AND WHICH ONES
13:56:05 8 YOU CONSIDER THE UI PATENTS?

13:56:32 9 MR. VERHOEVEN: OKAY. DO YOU WANT ME TO
13:56:34 10 GO FIRST?

13:56:34 11 MR. MCELHINNY: PLEASE.

13:56:35 12 MR. VERHOEVEN: OKAY. SO FOR THE APPLE
13:56:38 13 PATENTS, THOSE ARE ALL UI'S, ALL OF THEM.

13:56:41 14 THE COURT: OKAY.

13:56:42 15 MR. VERHOEVEN: I CAN LIST THEM OUT IF
13:56:43 16 YOU WOULD LIKE.

13:56:44 17 THE COURT: THAT'S OKAY.

13:56:45 18 MR. VERHOEVEN: AND THEN FOR THE SAMSUNG
13:56:47 19 PATENTS THERE ARE SEVEN STANDARDS PATENTS AND FIVE
13:56:52 20 FEATURE PATENTS, AND I'LL JUST READ OFF THE LAST
13:56:54 21 THREE DIGITS.

13:56:55 22 THE COURT: I'M MOSTLY INTERESTED JUST
13:56:57 23 FOR PURPOSES OF MY CLAIM CONSTRUCTION ORDER --

13:56:59 24 MR. VERHOEVEN: FOR PURPOSES OF TODAY --

13:57:02 25 THE COURT: -- TO KNOW WHAT A PERSON OF

13:57:05 1 ORDINARY SKILL IN THE ART WOULD HAVE BY WAY OF
13:57:07 2 EITHER ACADEMIC OR EXPERIENCE IN THE INDUSTRY.

13:57:13 3 MR. VERHOEVEN: OH, IT'S ONLY -- THERE'S
13:57:15 4 NO STANDARDS FOR CLAIMS CONSTRUCTION.

13:57:17 5 THE COURT: OKAY.

13:57:18 6 MR. VERHOEVEN: SO IT'S ALL FEATURE OR
13:57:21 7 UI, HOWEVER YOU WANT TO DESCRIBE IT, PATENTS AND ON
13:57:23 8 THE BREAK WE CAN CONFIRM ONE WAY OR THE OTHER
13:57:26 9 WHETHER THE DEFINITION FOR '711 APPLIES FOR THE
13:57:30 10 OTHERS.

13:57:31 11 THE COURT: OKAY. ALL RIGHT. THANK YOU.

13:57:32 12 YES, IF YOU COULD LET ME KNOW THAT DURING
13:57:34 13 THE BREAK, THAT WOULD BE GREAT.

13:57:36 14 OKAY. THEN WHY DON'T WE GO AHEAD AND GET
13:57:38 15 STARTED.

13:57:43 16 MR. MCELHINNY: THANK YOU, YOUR HONOR.
13:57:44 17 OBVIOUSLY WE'RE GOING TO PROCEED AS YOU WOULD LIKE.

13:57:46 18 WHAT WE HAVE AGREED AMONGST OURSELVES, IF
13:57:48 19 IT'S CONVENIENT FOR THE COURT, IS THAT APPLE WILL
13:57:50 20 PRESENT THE TUTORIAL ON THE PATENTS THAT APPLE IS
13:57:56 21 ASSERTING AS PLAINTIFF.

13:57:56 22 THE COURT: OKAY.

13:57:57 23 MR. MCELHINNY: AT WHICH POINT SAMSUNG
13:57:59 24 WILL RESPOND TO THAT TUTORIAL; AND SAMSUNG THEN
13:58:01 25 WILL PRESENT THE TUTORIAL ON ITS PATENTS AND APPLE

13:58:04 1 WILL RESPOND TO THAT.

13:58:05 2 THE COURT: OKAY. THAT'S FINE.

13:58:06 3 MR. MCELHINNY: THANK YOU. AS AN
13:58:10 4 INTRODUCTION, AS THIS COURT -- OBVIOUSLY THIS COURT
13:58:12 5 IS ALREADY DEEPLY INVOLVED IN THIS PATENT WITH THE
13:58:15 6 WORK THAT YOU DID ON THE PRELIMINARY INJUNCTION, OR
13:58:17 7 AT LEAST SOME OF THEM, BUT THE COURT IS AWARE OF
13:58:19 8 THE EVIDENCE THAT APPLE IS RECOGNIZED WORLDWIDE AS
13:58:24 9 AN INNOVATOR IN THE FIELD OF ELECTRONIC EQUIPMENT.

13:58:28 10 THE CHRONOLOGY SHOWS THAT WITH THE
13:58:32 11 INTRODUCTION OF THE MACINTOSH IN 1984 AND THE
13:58:36 12 NEWTON IN 1993, WHICH WE'LL ACTUALLY TALK ABOUT IN
13:58:40 13 THE TUTORIAL AS A STYLUS BASE, AND THEN WITH THE
13:58:43 14 IPOD AND THE IPHONE, THE INTRODUCTION OF THE IPHONE
13:58:46 15 IN 2007 AND FINALLY THE IPAD IN 2010.

13:58:54 16 BUT AGAIN, YOU HAVE SEEN A LOT OF
13:58:55 17 INFORMATION THAT DISCUSSES THE REVOLUTION THAT THE
13:58:57 18 IPHONE CAUSED IN THE ELECTRONIC PHONE INDUSTRY NOT
13:59:01 19 ONLY IN TERMS OF DESIGN BUT IN TERMS OF THE
13:59:03 20 TECHNOLOGY THAT WAS INCORPORATED IN THE IPHONE.

13:59:07 21 IN THIS CASE WE HAVE BROUGHT TOGETHER, AS
13:59:09 22 I HAVE SAID, A GROUP OF PATENTS THAT WE THINK HAD
13:59:12 23 SOME INTEGRITY AND SORT OF AN INTRINSIC APPROACH
13:59:16 24 TOWARD THE RELATIONSHIP BETWEEN THE IPHONE AND THE
13:59:18 25 USER.

13:59:19 1 AND SO WE ARE ASSERTING IN THIS CASE FOUR
13:59:22 2 DESIGN PATENTS WHICH GO TO THE EXTERNAL APPEARANCE
13:59:24 3 OF THE PHONE; THREE DESIGN PATENTS THAT GO TO THE
13:59:32 4 ICONS THAT ARE USED ON THE FACE OF THE PHONE; AND
13:59:34 5 THEN A SERIES OF UTILITY PATENTS, WHICH AT LEAST
13:59:37 6 WE, FOR PURPOSES OF LOGICAL PROCESS, DIVIDE INTO
13:59:42 7 SOME GROUPS.

13:59:43 8 SO THE FIRST IS WHAT WE CALL THE APPLE
13:59:45 9 USER INTERFACE PATENTS, AND THESE PATENTS ACTUALLY
13:59:49 10 PRECEDED THE IPHONE, BUT THEY'RE INNOVATIONS IN THE
13:59:52 11 WAY THAT THE USER INTERFACE WOULD BE PRESENTED ON
13:59:55 12 THE ELECTRONIC EQUIPMENT.

13:59:56 13 AND THAT INCLUDES THE '002, WHICH WE CALL
13:59:59 14 THE CONTROL STRIP PATENT; THE '891, WHICH IS THE
14:00:02 15 TIMED WINDOW PATENT.

14:00:07 16 THE NEXT SET IN AT LEAST OUR THINKING
14:00:09 17 ABOUT IT IS WHAT WE CALL THE TOUCH USER INTERFACE
14:00:11 18 PATENTS.

14:00:12 19 SO THE IPHONE BROUGHT A TOUCHSCREEN TO
14:00:14 20 THE PHONE BUSINESS AND REQUIRED AN ADVANCED SET OF
14:00:19 21 USER INTERFACE INVENTIONS IN ORDER TO CONTROL THE
14:00:22 22 SCREEN AND THE PHONE.

14:00:22 23 AND WE GROUP THOSE AS THE '381 PATENT,
14:00:29 24 WHICH WE CALL THE RUBBERBANDING AT EDGE PATENT, AS
14:00:32 25 YOUR HONOR IS FAMILIAR WITH; THE '915 PATENT, WHICH

14:00:35 1 WE CALL SCROLL OR GESTURE PATENT; AND THE 163,
14:00:39 2 WHICH WE CALL THE TOUCH OR ZOOM OR NAVIGATE PATENT.

14:00:44 3 IN ORDER TO BRING THESE PHONES TOGETHER,
14:00:46 4 THERE ALSO HAD TO BE ADVANCES IN HARDWARE, AND SO
14:00:48 5 WE PRESENTED TWO HARDWARE PATENTS: THE '607, WHICH
14:00:52 6 WE CALL THE MULTIPOINT TOUCHSCREEN PATENT; AND THE
14:00:55 7 '129 PATENT, WHICH IS THE SHIELDING LAYER PATENT.

14:01:01 8 AND FINALLY, WE BROUGHT TOGETHER A PATENT
14:01:04 9 THAT SPEAKS TO HOW TO INTERPRET THE DATA WHICH IS
14:01:09 10 ENTERED INTO THIS TOUCHSCREEN USING SOME OF THESE
14:01:12 11 OTHER INVENTIONS AND THAT PATENT IS THE '828, WHICH
14:01:15 12 WE CALL THE ELLIPSE FITTING PATENT.

14:01:18 13 TODAY OUR TUTORIAL IS GOING TO BE
14:01:21 14 PRESENTED BY DR. RAVIN BALAKRISHNAN, WHO IS A
14:01:26 15 WORLDWIDE EXPERT IN THE FIELD OF HUMAN COMPUTER
14:01:29 16 INTERACTION. HUMAN, THAT'S MY JOB. HIS JOB IS
14:01:33 17 ACTUALLY HUMAN COMPUTER INTERACTION.

14:01:35 18 THE COURT: IT'S MUCH APPRECIATED IN A
14:01:37 19 PATENT CASE.

14:01:37 20 MR. MCELHINNY: SOMETIMES. AND HE IS A
14:01:39 21 PROFESSOR AT THE UNIVERSITY OF TORONTO.

14:01:41 22 IF IT'S ALRIGHT WITH THE COURT, I PROPOSE
14:01:43 23 THAT DR. BALAKRISHNAN WOULD SIMPLY DO HIS TUTORIAL
14:01:47 24 STANDING HERE AT THE MICROPHONE.

14:01:48 25 THE COURT: THAT'S FINE.

14:01:49 1 MR. MCELHINNY: THANK YOU.

14:01:54 2 DR. BALAKRISHNAN.

14:01:54 3 MR. BALAKRISHNAN: GOOD AFTERNOON, YOUR
14:01:56 4 HONOR.

14:01:56 5 THE COURT: GOOD AFTERNOON.

14:02:00 6 SO WHERE I WOULD LIKE TO DO TODAY IS TO
14:02:02 7 GIVE YOU A BROAD BACKGROUND ON THE TECHNOLOGIES
14:02:05 8 RELATING TO THE PATENTS IN DISPUTE HERE.

14:02:07 9 AND WHAT I WANT TO START IS JUST WITH A
14:02:10 10 LITTLE BIT OF BACKGROUND ABOUT THE FIELD ITSELF AND
14:02:12 11 THIS IS HUMAN COMPUTER INTERACTION.

14:02:14 12 IT RELATES TO THE STUDY AND DESIGN OF HOW
14:02:17 13 PEOPLE, HUMAN BEINGS, INTERACT WITH COMPUTER
14:02:20 14 TECHNOLOGY BROADLY DEFINED.

14:02:22 15 AND A KEY THING TO NOTE ABOUT THIS FIELD
14:02:25 16 IS THAT UNLIKE A COMPUTER SCIENCE, WHICH IS ONLY
14:02:29 17 TECHNICAL GENERALLY, THIS BRINGS TOGETHER SEVERAL
14:02:31 18 DIFFERENT DISCIPLINES: COMPUTER SCIENCE,
14:02:34 19 ELECTRICAL ENGINEERING FROM THE TECHNICAL SIDE OF
14:02:35 20 THINGS, BEHAVIORAL SCIENCES IN TERMS OF
14:02:36 21 UNDERSTANDING THE HUMAN PSYCHOLOGY, SOCIOLOGY AND
14:02:41 22 ANTHROPOLOGY AND ALSO VERY IMPORTANT IS THE DESIGN
14:02:43 23 AND THE ESTHETICS OF HOW THESE TECHNOLOGIES SHOULD
14:02:48 24 BE BUILT.

14:02:48 25 AND IT'S A DIFFICULT FIELD IN THE SENSE

14:02:51 1
14:02:53 2
14:02:55 3
14:02:57 4
14:02:59 5
14:03:02 6
14:03:05 7
14:03:10 8
14:03:12 9
14:03:15 10
14:03:18 11
14:03:21 12
14:03:25 13
14:03:27 14
14:03:30 15
14:03:33 16
14:03:36 17
14:03:38 18
14:03:39 19
14:03:43 20
14:03:45 21
14:03:47 22
14:03:50 23
14:03:52 24
14:03:54 25

THAT SOMEBODY PRACTICING REALLY NEEDS TO BUILD A TEAM THAT COMBINES EXPERTISE WITH THESE DIFFERENT SUBDISCIPLINES.

AND IF THERE IS AN OVERARCHING GOAL IN THE FIELD, IT'S REALLY TO MAKE TECHNOLOGY EASIER TO USE BUT NOT JUST EASIER TO USE BUT EASIER TO LEARN TO USE, SORT OF THE LEARNING CURVE FOR A NOVICE BEGINNING USER IS AMELIORATED.

AND ONE OF THE MAIN ADVANCES IN THE HUMAN COMPUTER INTERFACE FIELD IN THE LAST FEW DECADES WAS THE ADVANCE OF THE GRAPHICAL USER INTERFACE. AND THIS GOES BACK TO THE EARLY 1970'S AND THERE WAS A FUNDAMENTAL IMPROVEMENT OVER THE INTERFACES OF THAT TIME WHICH WERE COMMAND-LINE INTERFACES AND COMMAND-LINE INTERFACES WERE THOSE THAT ONE HAS TO LEARN SOME COMMANDS WHERE YOU TYPED INTO THE COMPUTER AND THE COMPUTER THEN RESPONDED.

AND THE PROBLEM WITH THAT IS YOU REALLY HAD TO BE AN EXPERT TO UNDERSTAND WHAT THOSE COMMANDS WERE IN ORDER TO BE ABLE TO USE THOSE COMPUTERS. SO A NOVICE OR A LAYPERSON TRYING TO USE THIS WOULD HAVE NO IDEA WHAT TO TYPE IN AND AS A RESULT OF THE LEARNING ASPECT OF THE INTERFACE WAS FAIRLY DIFFICULT.

WHAT THE GRAPHICAL USER INTERFACE DID

14:03:56 1 WAS, AS WE'RE ALL FAMILIAR WITH TODAY, IS PROVIDE A
14:04:01 2 POINTING DEVICE, IT COULD BE A MOUSE OR TOUCH PAD,
14:04:03 3 WHICH MOVED THE CURSOR THAT CONTROLS SOME GRAPHICAL
14:04:03 4 ELEMENT.

14:04:06 5 AND THE KEY THING WITH THIS WAS THAT EVEN
14:04:08 6 IF YOU DID NOT KNOW WHAT FUNCTIONALITY WAS
14:04:10 7 AVAILABLE, ALL YOU REALLY NEEDED TO KNOW WAS THAT I
14:04:13 8 COULD MOVE THE MOUSE, MOVE THE CURSOR TO POINT AT
14:04:16 9 SOMETHING. AND IF I CLICK ON AN ICON, THE
14:04:19 10 RESULTING ACTION WOULD TELL ME WHAT FUNCTIONALITY
14:04:22 11 WAS AVAILABLE. SO THERE WAS AN EASING OF THE
14:04:27 12 LEARNING CURVE SO TO SPEAK.

14:04:28 13 ONE OF THE EARLIER GRAPHICAL USER
14:04:31 14 INTERFACES AVAILABLE TO THE PUBLIC WAS THE APPLE
14:04:35 15 LISA, WHICH WAS THE FIRST PERSONAL COMPUTER WITH
14:04:37 16 THE GRAPHICAL USER INTERFACE SOLD.

14:04:40 17 AND AS YOU CAN SEE IN THE IMAGE ON THE
14:04:44 18 BOTTOM RIGHT IS AN EARLY MOUSE SHIPPED WITH THAT
14:04:45 19 DEVICE, AND THERE'S A POINTER ON THE SCREEN AND THE
14:04:47 20 POINTER IS USED TO SELECT THOSE DIFFERENT GRAPHICAL
14:04:51 21 ELEMENTS AND THAT WE HAVE ALL BECOME FAMILIAR WITH
14:04:53 22 OVER THE YEARS.

14:04:55 23 NOW, THIS WAS ALL IN THE WORKSTATION AND
14:04:58 24 THE PERSONAL COMPUTER WORLD AND EVENTUALLY DEVICES
14:05:00 25 STARTED GETTING MORE MOBILE. THEY STARTED GETTING

14:05:03 1
14:05:04 2
14:05:06 3
14:05:09 4
14:05:12 5
14:05:12 6
14:05:15 7
14:05:19 8
14:05:23 9
14:05:26 10
14:05:31 11
14:05:31 12
14:05:33 13
14:05:36 14
14:05:38 15
14:05:43 16
14:05:45 17
14:05:52 18
14:05:56 19
14:05:58 20
14:06:00 21
14:06:04 22
14:06:08 23
14:06:10 24
14:06:14 25

SMALLER.

AND WHAT STARTED HAPPENING THERE IS THAT THE INTERFACE, IT WAS CHALLENGING. YOU COULDN'T HAVE A MOUSE WITH YOUR MOBILE PALM PILOT KIND OF DEVICE, FOR EXAMPLE.

SO IN THE EARLY 1990'S AND IN THE EXAMPLES UP HERE ARE TWO EXAMPLE DEVICES. ONE IS THE PSION 3, WHICH IS A PERSONAL DIGITAL ORGANIZER. AND IT HAD A LITTLE CHIPLET KEYBOARD AT THE BOTTOM WITH GRAPHICAL ICONS, BUT THERE WAS NO REAL CURSOR PER SE AND THE INTERACTION WOULD COME BACK TO IN THE OLD STYLE PSION.

AND THE I.B.M. SIMON WAS INTERESTING IN THAT IT HAD A TOUCHSCREEN, AND IT DID NOT HAVE ANY PHYSICAL KEYS OR THE TOUCH WAS FAIRLY RUDIMENTARY IN THAT IT DETECTED A SINGLE POINT OF TOUCH AND YOU EFFECTIVELY CLICKED ON VIRTUAL GRAPHICAL BUTTONS ON THE SCREEN IN ORDER TO OPERATE THE PHONE, BUT IT DID HAVE AN ADVANCE THAT IT GOT AWAY FROM THE KEYBOARDS BACK IN THE EARLY '90S.

IN 1993 APPLE CAME OUT WITH THE APPLE NEWTON, WHICH WAS SEEN AS A FAIRLY REVOLUTIONARY DEVICE AT THAT TIME. IT HAD A FEW INTERESTING FEATURES THAT BUILT UPON WHAT WAS KNOWN IN THE PRIOR ART AT THAT TIME.

14:06:15 1 ONE WAS IT USED A STYLUS INSTEAD OF
14:06:20 2 TOUCHSCREENS. IT HAD A LITTLE PEN TO USE TO
14:06:23 3 INTERACT WITH THE SCREEN AND THEY GOT RID OF THE
14:06:25 4 KEYBOARD ENTIRELY AND A RESULT OF THAT WAS THAT YOU
14:06:28 5 GOT MUCH MORE SCREEN REAL ESTATE ON THE DEVICE. SO
14:06:31 6 MOST OF THE DEVICE WAS A SCREEN AND YOU GOT TO SEE
14:06:34 7 MORE CONTENT.

14:06:34 8 WHAT WAS ALSO VERY INTERESTING WITH THIS
14:06:37 9 DEVICE WAS THE STYLUS INPUT ENABLED SOPHISTICATED
14:06:42 10 INPUT RECOGNITION. UNLIKE THE SIMON WHICH I SHOWED
14:06:45 11 IN THE PREVIOUS SLIDE WHERE YOU CLICKED ON VERY
14:06:47 12 SIMPLE BUTTONS TO INTERACT WITH THE SCREEN, THIS
14:06:50 13 DEVICE ACTUALLY DID FULL HANDWRITING RECOGNITION,
14:06:52 14 FOR EXAMPLE.

14:06:53 15 SO IT WAS VERY SOPHISTICATED. THAT CAME
14:06:56 16 WITH ITS OWN PROBLEMS. IT WASN'T A PERFECT
14:06:58 17 RECOGNITION SYSTEM AND SO FORTH, AND SO IT WAS A
14:07:02 18 DEVICE A LITTLE AHEAD OF ITS TIME ONE COULD SAY
14:07:04 19 THAT IS WELL RECOGNIZED IN THE FIELD.

14:07:06 20 NOW, FOR THE DECADE AFTER THAT, SO THE
14:07:09 21 MID-'90S TO THE MID-2000S, MOBILE DEVICES KIND OF I
14:07:13 22 WOULD SAY ROUGHLY BROKE INTO TWO CAMPS AS FAR AS
14:07:16 23 THE USER INTERFACE WAS CONCERNED.

14:07:18 24 ON THE LEFT-HAND SIDE ON THE SCREEN I
14:07:20 25 HAVE SHOWN A -- JUST AN EXAMPLE OF ONE OF THE

14:07:25 1 CAMPS, WHICH IS THE PALM PILOT DEVICE. AND THIS
14:07:27 2 DEVICE, LIKE THE NEWTON, HAD USED A STYLUS OR A PEN
14:07:30 3 ON A SCREEN. IT DID NOT HAVE A PHYSICAL KEYBOARD.
14:07:33 4 AND AS A RESULT YOU GOT A BIGGER SCREEN REAL ESTATE
14:07:37 5 OF THE DISPLAY.

14:07:38 6 BUT WHAT IT DID, UNLIKE THE NEWTON, IS IT
14:07:41 7 REGRESSED A LITTLE BIT ON THE SOPHISTICATION OF THE
14:07:45 8 RECOGNITION. SO INSTEAD OF RECOGNIZING FULL-BLOWN
14:07:47 9 HANDWRITING, IT USED A MUCH SIMPLER ALPHABET THAT
14:07:50 10 THE COMPUTER COULD RECOGNIZE MORE ACCURATELY AND
14:07:53 11 THAT DEVICE HAD A GOOD RUN OVER A DECADE OF SUCCESS
14:07:55 12 THERE.

14:07:56 13 THE OTHER CAMP, WHICH IS PERHAPS THE
14:07:59 14 BLACKBERRY STYLE DEVICES, FOR OVER A DECADE DECIDED
14:08:02 15 THEY WERE GOING TO GO BACK TO THE KEYBOARD. SO
14:08:05 16 THEY HAD A FULL NUMBER PAD KEYBOARD AND AS A RESULT
14:08:11 17 THE SCREEN WAS QUITE A BIT SMALLER ON THE DISPLAY.

14:08:14 18 SO THAT WAS KIND OF STATE OF THE ART FOR
14:08:17 19 ABOUT A DECADE OR SO.

14:08:18 20 AND THEN THE IPHONE CAME ALONG IN 2007.

14:08:22 21 SO THIS WAS -- IT REALLY CHANGED THE
14:08:25 22 PLAYING FIELD IN SEVERAL DIFFERENT WAYS.

14:08:27 23 ONE, IT -- THE INTERFACE WAS REALLY VERY
14:08:31 24 ELOQUENT, AND IT WAS ESTHETICALLY BEAUTIFUL. AND
14:08:36 25 THIS GOES BACK TO MY OPENING SLIDE I TALKED ABOUT

14:08:39 1 DESIGN AND ESTHETIC AS BEING PART OF THE FIELD OF
14:08:43 2 HUMAN INTERACTION AND THE IPHONE REALLY SPENT A LOT
14:08:45 3 OF EFFORT ON THAT ASPECT OF THE DEVICE.

14:08:47 4 ALMOST THE ENTIRE DEVICE IS A SCREEN. SO
14:08:50 5 YOU REALLY MAXIMIZE THE AMOUNT OF DATA THAT CAN BE
14:08:53 6 SHOWN TO THE USER.

14:08:56 7 THEY USE A TOUCHSCREEN, AND UNLIKE THE
14:09:00 8 SIMON, HOWEVER, THE TOUCHSCREEN IS ABLE TO
14:09:02 9 RECOGNIZE MORE THAN ONE TOUCH SIMULTANEOUSLY. SO
14:09:05 10 IT'S A MULTI TOUCHSCREEN.

14:09:07 11 AND THE KEY THING WITH THIS IS THAT ONCE
14:09:09 12 YOU HAVE MULTI TOUCH INPUT FROM THE USER, TOUCHES
14:09:13 13 THAT THE USER USES TO INTERACT WITH THE SYSTEM,
14:09:17 14 EVEN THOUGH THE USER MAY THINK THEY'RE DOING THE
14:09:20 15 SAME TOUCH AS THE ONE THEY DID PREVIOUSLY FOR THE
14:09:23 16 SAME FUNCTION, THE INPUT CAN BE SOMEWHAT AMBIGUOUS
14:09:27 17 BECAUSE TWO FINGERS DO NOT NECESSARILY GO DOWN THE
14:09:31 18 SAME WAY YOU USE IT.

14:09:33 19 AND WHAT THE IPHONE DID WAS IT HAD
14:09:35 20 SOFTWARE THAT WAS ABLE TO TAKE THOSE AMBIGUOUS
14:09:37 21 TOUCHES AND MAKE APPROPRIATE INTERPRETATIONS OF
14:09:39 22 THOSE AMBIGUOUS TOUCHES SO THE RESULTING
14:09:42 23 FUNCTIONALITY WAS CORRECT ALMOST ALL OF THE TIME.

14:09:47 24 SO EFFECTIVELY, IF I COULD SUM UP, IT
14:09:49 25 ALLOWED FOR VERY SIMPLE INPUTS AND FAIRLY

14:09:52 1 SOPHISTICATED FUNCTIONALITY TO SUPPORT IT BY THOSE
14:09:54 2 INPUTS.

14:09:55 3 NOW -- SO THAT'S A VERY BROAD BACKGROUND
14:09:58 4 OF THE FIELD AND IN THE PHONE OF INTERFACE SPACE
14:10:03 5 FOR ABOUT TWO OR THREE DECADES.

14:10:05 6 NOW, I WANT TO TALK ABOUT EACH ONE OF
14:10:08 7 THESE PATENTS FOR A LITTLE BIT. AND AS HAROLD
14:10:10 8 MENTIONED, WE HAVE BROKEN THEM UP FOR LOGICAL
14:10:13 9 INTERPRETATION INTO THREE CATEGORIES.

14:10:15 10 THE FIRST CATEGORY IS THE USER INTERFACE
14:10:18 11 PATENTS THAT PREDATE THE IPHONE BUT ARE NONETHELESS
14:10:24 12 RELEVANT. FIRST IS THE '002 PATENT, WHICH WE CALL
14:10:27 13 THE CONTROL STRIP PATENT; THE '891 PATENT, WHICH WE
14:10:32 14 CALL THE TIMED WINDOW PATENT.

14:10:34 15 AND UNDER THREE PATENTS WHICH WE GROUP AS
14:10:36 16 TOUCH USER INTERFACE PATENTS: AND THESE ARE THE
14:10:39 17 '381, WHICH WE HAVE TERMED THE RUBBERBANDING AT
14:10:43 18 EDGE PATENT; THE '915, WHICH IS THE SCROLL OR
14:10:47 19 GESTURE PATENT; THE '163; WHICH IS THE TOUCH TO
14:10:52 20 ZOOM AND NAVIGATE PATENT.

14:10:55 21 AND FINALLY THREE PATENTS THAT WE
14:10:58 22 CLASSIFY AS BEING HARDWARE AND DATA INTERPRETATION
14:11:01 23 PATENTS: THE FIRST TWO ARE THE HARDWARE PATENTS.
14:11:04 24 THE '607 IS THE MULTIPOINT TOUCHSCREEN; AND THE
14:11:08 25 '129 IS THE SHIELDING LAYER; AND THE '828 DEALS

14:11:11 1 WITH HOW DO YOU TAKE THAT DATA FROM THE HARDWARE
14:11:14 2 AND INTERPRET THAT APPROPRIATELY BY ELLIPSE FITTING
14:11:18 3 AND WE CALL IT ELLIPSE FITTING.

14:11:21 4 SO NOW LET ME DIVE IN A LITTLE BIT TO
14:11:23 5 EACH OF THESE PATENTS AND THE TECHNOLOGY BEHIND
14:11:26 6 THEM.

14:11:27 7 FIRST OF ALL, THE '002 OR CONTROL STRIP
14:11:31 8 PATENT. AND THIS IS A PATENT ORIGINALLY FILED IN
14:11:34 9 1994 ISSUED TO CHRISTENSEN, ET AL.

14:11:41 10 AND WHAT THIS PATENT IS ABOUT IS
14:11:43 11 ESSENTIALLY PROVIDING THE USER WITH A QUICK WAY TO
14:11:46 12 LOOK AT STATUS INFORMATION ON A COMPUTER, AND THIS
14:11:48 13 IS BY A CONTROL STRIP OR A STATUS BAR AT SOME
14:11:52 14 LOCATION IN THE COMPUTER. AND I'VE HIGHLIGHTED
14:11:54 15 THAT ON THIS SCREEN WITH A YELLOW HIGHLIGHT.

14:11:57 16 IT EFFECTIVELY SHOWS THE STATUS OF
14:12:00 17 SEVERAL DIFFERENT APPLICATIONS AND SERVICES RUNNING
14:12:03 18 ON THE MACHINE AT ANY GIVEN TIME, FOR EXAMPLE,
14:12:05 19 BATTERY LIFE, CLOCK, AND SO FORTH.

14:12:12 20 AND HERE IS JUST A LITTLE BIT OF TEXT TO
14:12:15 21 BACK THAT UP. IT'S NOT ONLY IMPORTANT FOR THE
14:12:20 22 DEVICES IT WAS INVENTED FOR, WHICH IS THE DESKTOP
14:12:24 23 COMPUTER, BUT AS WE GO TO MOBILE DEVICES, SIMILAR
14:12:27 24 STATUS INFORMATION IS ALSO DESIRABLE TO BE ACQUIRED
14:12:30 25 AT A GLANCE AND AS YOU CAN SEE ON THE IPHONE ON THE

14:12:33 1 -- RIGHT AT THE TOP IT SHOWS A CONTROL STRIP WHICH
14:12:36 2 HAS THE NETWORK STRENGTH ON THE LEFT, THE CLOCK IN
14:12:39 3 THE MIDDLE, AND THE AMOUNT OF BATTERY LIFE LEFT ON
14:12:44 4 THE RIGHT.

14:12:45 5 AT A GLANCE A QUICK LOOK AT THIS CONTROL
14:12:47 6 STRIP GIVES YOU THE STATUS.

14:12:49 7 THE NEXT PATENT I WANT TO TOUCH UPON IS
14:12:54 8 THE '891 OR THE TIMED WINDOW PATENT.

14:12:57 9 AND THIS WAS FILED IN 2002 ISSUED TO
14:13:00 10 CHAUDHRI, ET AL. AND WHAT THIS IS ABOUT IS
14:13:05 11 BASICALLY SAYING WHEN I'M DOING SOMETHING ON MY
14:13:07 12 COMPUTER OR MOBILE DEVICE, SOME STATUS INFORMATION
14:13:11 13 MAY CHANGE AND YOU WANT TO SHOW ME THAT INFORMATION
14:13:13 14 IN A WINDOW THAT APPEARS FOR A PARTICULAR PERIOD OF
14:13:16 15 TIME AND THEN GOES AWAY. SO IT'S A TIMED WINDOW,
14:13:22 16 AND IT APPEARS INDEPENDENTLY OF ANY POSSIBLE
14:13:26 17 OCCASION OF THE CURSOR.

14:13:27 18 SO, FOR EXAMPLE, HERE I'M GOING TO SHOW
14:13:29 19 YOU THE VIDEO HERE, THE USER IS USING THE MEMO PAD
14:13:33 20 APPLICATION AND A QUICK NOTE AND THE CURSOR THERE.
14:13:36 21 AND IF THE USER CHANGES THE VOLUME, A LITTLE WINDOW
14:13:40 22 POPS UP SHOWING THE VOLUME AND THEN IT GOES AWAY
14:13:44 23 AFTER A PARTICULAR PERIOD OF TIME. SO IT'S A TIMED
14:13:46 24 WINDOW APPEARING INDEPENDENTLY OF WHERE THE CURSOR
14:13:49 25 WAS AND SHOWING THE STATUS OF THE INFORMATION AND

14:13:51 1 THEN FADES AWAY.

14:13:52 2 SO THAT IS THE '891 PATENT.

14:13:57 3 LET'S MOVE ON TO THE TOUCH USER INTERFACE
14:13:59 4 PATENT. THE FIRST ONE I WANT TO TALK ABOUT IS THE
14:14:01 5 '381 PATENT, WHICH WE CALL RUBBERBANDING AT EDGE.
14:14:05 6 THIS WAS FILED IN 2007, AND IT WAS ISSUED TO BAS
14:14:05 7 ORDING.

14:14:11 8 AND BEFORE WE TALK ABOUT THE PATENT
14:14:12 9 ITSELF, LET'S TALK ABOUT THE TWO PROBLEMS THAT THIS
14:14:16 10 PATENT IS REALLY LOOKING AT. AND THESE ARE TWO
14:14:19 11 PROBLEMS IN DOCUMENT NAVIGATION IN GENERAL.

14:14:22 12 THE FIRST PROBLEM IS THE QUESTION IS THAT
14:14:24 13 IS MY SCREEN FROZEN? WELL, WHAT DO I MEAN BY THAT?

14:14:27 14 WHAT I MEAN BY THAT IS THAT SOMETIMES YOU
14:14:29 15 GET INTO SITUATIONS WHERE YOU TRY TO INTERACT WITH
14:14:32 16 YOUR COMPUTER USING A MOUSE OR A KEYBOARD OR A
14:14:35 17 TOUCHSCREEN AND THE SYSTEM DOESN'T REACT TO YOU.
14:14:37 18 IT'S UNCLEAR WHETHER THE SYSTEM IS FROZEN, THE
14:14:40 19 SCREEN IS FROZEN OR YOU HAVE SIMPLY COME TO THE END
14:14:42 20 OF SOME DATA AND THERE REALLY IS NOWHERE ELSE TO
14:14:46 21 GO. SO EVEN THOUGH IT'S NOT FROZEN, THERE IS
14:14:49 22 NOWHERE ELSE TO GO.

14:14:50 23 BUT THE USER HAS NO IDEA WHICH WAY IT IS.
14:14:53 24 IS IT FROZEN OR AM I JUST AT THE END OF MY DATA?
14:14:57 25 SO THAT'S ONE PROBLEM.

14:14:58 1 AND THE SECOND PROBLEM IS WHAT IS CALLED
14:15:00 2 THE LOST IN DESERT FOG PROBLEM. AND THIS IS THE
14:15:03 3 PROBLEM WHERE YOU TAKE IT AND YOU'RE NAVIGATING
14:15:06 4 SOME DATA, YOU NAVIGATE AWAY FROM THAT DATA AND YOU
14:15:10 5 END UP IN BLANK SPACE, SO TO SPEAK, AND WHEN YOU
14:15:13 6 END UP IN BLANK SPACE YOU'RE DISORIENTED, YOU'RE IN
14:15:16 7 THE DESERT FOG, YOU DON'T KNOW WHERE YOU ARE AND
14:15:18 8 IT'S VERY DIFFICULT TO GET BACK.

14:15:19 9 SO LET ME ILLUSTRATE THIS WITH TWO LITTLE
14:15:23 10 VIDEOS HERE.

14:15:23 11 SO THE FROZEN SCREEN PROBLEM. SO, FOR
14:15:27 12 EXAMPLE, IF YOU'RE NAVIGATING A MAP LET'S SAY ON
14:15:29 13 THE IPHONE. AND THE LITTLE ANIMATION HERE. IT
14:15:34 14 REACTS FOR A LITTLE BIT AND THEN IT FREEZES.

14:15:36 15 SO WHEN THAT OCCURS -- LET ME PLAY THIS
14:15:39 16 AGAIN. INITIALLY THERE'S MOVEMENT, AND THEN IT
14:15:44 17 FREEZES.

14:15:44 18 SO AT THAT POINT THE USER DOES NOT KNOW
14:15:46 19 WHETHER THEY HAVE COME TO THE END OF THE MAP, IN
14:15:49 20 OTHER WORDS, WHETHER THERE'S NO MORE MAP TO SHOW OR
14:15:52 21 HAS THE SCREEN JUST LOCKED UP AND THE '381 PROVIDES
14:15:56 22 A SOLUTION TO THIS PROBLEM AND WE'LL SEE THAT IN A
14:15:58 23 MINUTE.

14:15:59 24 THE DESERT FOG PROBLEM IS THE PROBLEM
14:16:02 25 WHERE YOU NAVIGATE A MAP, FOR EXAMPLE, IT COULD BE

14:16:04 1 ANY KIND OF DATA AND WE SHOW THIS IN THIS
14:16:07 2 ANIMATION.

14:16:08 3 AND SO YOU MOVE THE MAP BEYOND THE
14:16:10 4 CONFINES OF THE SCREEN AND NOW YOU'RE IN DESERT
14:16:12 5 SPACE, OR FOG SPACE, A BLANK SPACE, AND YOU HAVE NO
14:16:15 6 IDEA WHERE YOU ARE ANY MORE.

14:16:17 7 SO THAT INSTANT WHERE IT WENT AWAY, YOU
14:16:19 8 MAY BE ABLE TO RECOVER IT, BUT IF IT SPAWNS FIVE OR
14:16:24 9 TEN SECONDS YOU REALLY ARE LOST. SO THE SYSTEM
14:16:27 10 SHOULD NOT LET YOU DO THAT AND THE '381 PROBLEM
14:16:30 11 PATENT PROVIDES A SOLUTION BY RUBBERBANDING AT THE
14:16:34 12 EDGE.

14:16:34 13 WHAT I HAVE DONE HERE AT THE SLIDE, YOUR
14:16:36 14 HONOR, IS TAKEN SEVERAL FIGURES FROM THE PATENT,
14:16:39 15 FIGURES 6A AND 6D AND ANIMATED THEM JUST TO SHOW
14:16:44 16 WHAT HAPPENS.

14:16:48 17 SO LET'S GET THIS CLICKER WORKING. HERE
14:16:51 18 WE GO. THE USER MOVES AS WE SHOW IN THE PREVIOUS
14:16:54 19 TWO ANIMATIONS THERE. WHEN YOU COME TO THE EDGE OF
14:16:57 20 THE DOCUMENT, IT DOESN'T JUST FREEZE, IT SHOWS A
14:17:00 21 LITTLE BIT OF BLANK SPACE AS TO THE EXTENT BEYOND
14:17:02 22 THE DOCUMENT TO TELL ME YOU'RE DONE, YOU HAVE
14:17:05 23 REACHED THE END OF THE DOCUMENT, AND THEN WHEN YOU
14:17:07 24 LET GO IT GOES BACK.

14:17:08 25 SO IT NEVER ACTUALLY TAKES YOU AWAY FROM

14:17:11 1 THE DOCUMENT COMPLETELY. AND IT DOESN'T JUST
14:17:13 2 FREEZE. IT SOLVES BOTH THE FREEZING PROBLEM AND
14:17:18 3 THE DESERT FOG PROBLEM.

14:17:19 4 JUST TO REITERATE THAT POINT, LET ME SHOW
14:17:22 5 YOU THAT ON A REAL APPLICATION ON THE IPHONE AS
14:17:24 6 OPPOSED TO THE FIGURES ON THE PATENT.

14:17:27 7 HERE'S A WEB BROWSER AND THE USER IS
14:17:29 8 NAVIGATING THROUGH THAT WEB PAGE IN SEVERAL
14:17:34 9 DIFFERENT WAYS.

14:17:35 10 NOW, NAVIGATE TO THE LEFT AND YOU REACH
14:17:39 11 THE END OF THE PAGE AND IT BOUNCES BACK. SO AGAIN
14:17:42 12 YOU DON'T GET LOST AND IT DOESN'T FREEZE.

14:17:44 13 THAT'S THE ESSENCE OF WHAT THIS PATENT
14:17:47 14 DOES.

14:17:47 15 NOW, I'M GOING TO MOVE ON TO THE '915
14:17:50 16 PATENT WHICH WE CALL THE SCROLL OR GESTURE.

14:17:54 17 AND WHAT THIS PATENT IS ABOUT -- AND I'M
14:17:56 18 HAVING TROUBLE WITH MY CLICKER HERE.

14:17:58 19 AND SO IT WAS ORIGINALLY FILED IN 2007
14:18:02 20 AND IT WAS ISSUED TO PLATZER, ET AL. AND WHAT THIS
14:18:08 21 PATENT IS ABOUT ON A MULTI TOUCHSCREEN TO DETERMINE
14:18:12 22 WHETHER TO SCROLL THE CONTENT UP OR DOWN OR LEFT OR
14:18:15 23 RIGHT AND DEPENDING ON THE TYPE OF SCROLLING AND/OR
14:18:21 24 TO DO SOME OTHER KIND OF GESTURAL INTERACTION AND
14:18:24 25 IT DOES THAT DEPENDING ON WHETHER IT'S ONE FINGER

14:18:27 1 TOUCHING THE SCREEN OR MORE THAN ONE FINGER

14:18:29 2 TOUCHING THE SCREEN.

14:18:29 3 SO, FOR EXAMPLE, WHEN I SHOW YOU HERE THE
14:18:33 4 USER IS SCROLLING WITH THE ONE FINGER SCROLL IN ONE
14:18:37 5 DIRECTION AND THAT DIRECTION COULD BE THE OTHER WAY
14:18:39 6 AROUND AS WELL AS DEPENDING ON THE TYPE OF
14:18:40 7 LIMITATION.

14:18:41 8 OR WHEN THEY WENT TO TWO FINGERS THERE,
14:18:44 9 IT DID A DIFFERENT FUNCTIONALITY. IT DID A
14:18:47 10 SCROLLING, THIS PINCH TO ZOOM OR GESTURE AND THAT'S
14:18:49 11 WHAT THIS PATENT REALLY IS FOCUSED ON THE
14:18:51 12 DIFFERENCE BETWEEN ONE FINGER OR MORE THAN ONE
14:18:56 13 FINGER SCROLLING VERSUS OTHER KINDS OF GESTURES.

14:18:59 14 THE NEXT PATENT WE'LL BRIEFLY TALK ABOUT
14:19:02 15 IS THE '163 PATENT AND WHAT WE CALL TOUCH TO ZOOM
14:19:05 16 AND NAVIGATE. AND THIS WAS ORIGINALLY FILED IN
14:19:12 17 2006 TO BAS ORDING AND SEVERAL OTHERS.

14:19:18 18 AND WHAT THIS PATENT IS ABOUT IS
14:19:20 19 BASICALLY PROVIDING A WAY TO EASILY MOVE BETWEEN
14:19:24 20 PORTIONS OF CONTENT IN A STRUCTURE DOCUMENT ON
14:19:28 21 SCREEN.

14:19:28 22 SO THE ISSUE HERE IS THE SCREEN AND WITH
14:19:31 23 THE SIZE YOU CANNOT SHOW ALL OF THE CONTENT YOU
14:19:33 24 WANT TO SHOW AT THE RIGHT RESOLUTION AT ANY GIVEN
14:19:36 25 TIME.

14:19:36 1 SO IT PROVIDES A NICE WAY TO BOUNCE
14:19:39 2 AROUND BETWEEN DIFFERENT PARTS OF THE CONTENT THAT
14:19:42 3 YOU MAY BE INTERESTED IN AND ZOOMING IN AND OUT TO
14:19:45 4 MAGNIFY THE CONTENT APPROPRIATELY AS NEEDED.

14:19:49 5 SO LET ME SHOW YOU AN EXAMPLE HERE. THE
14:19:52 6 USER IS, DOUBLE TAPS IN ONE LOCATION AND YOU ZOOM
14:19:57 7 THAT AND IT DOES IT A FEW MORE TIMES AND DOUBLE
14:20:01 8 TAPPING AGAIN IN THE SAME LOCATION AND IT ZOOMS
14:20:03 9 OUT.

14:20:03 10 SO NOW YOU'RE BACK INTO THE OVERALL
14:20:07 11 CONTEXT. AND SO THAT'S THE ESSENCE OF THIS PATENT,
14:20:09 12 IT'S A WAY TO NAVIGATE AND ZOOM EASILY IN A
14:20:13 13 STRUCTURED DOCUMENT ENVIRONMENT ON A SMALL SCREEN.

14:20:17 14 NOW, LET ME MOVE ON TO THE HARDWARE DATA
14:20:22 15 AND INTERPRETATION PATENTS.

14:20:24 16 AND BEFORE I GET INTO THE PATENTS
14:20:26 17 THEMSELVES, I WANT TO TALK A LITTLE BIT ABOUT
14:20:28 18 TOUCHSCREEN HARDWARE GENERALLY.

14:20:30 19 SO, FIRST OF ALL, WITH THE TOUCHSCREEN
14:20:32 20 DEVICE BROADLY DEFINED IT REQUIRES TWO THINGS AT A
14:20:35 21 VERY HIGH LEVEL. IT REQUIRES SOME HARDWARE TO
14:20:37 22 SENSE THE TOUCH AND THEN IT NEEDS SOME SOFTWARE TO
14:20:43 23 INTERPRET THE DATA COMING OUT OF THAT HARDWARE AND
14:20:45 24 MAKE SENSE OUT OF IT.

14:20:46 25 AND WE HAVE SEEN ALREADY SOME OF THE USER

14:20:49 1 INTERFACE PATENTS THAT A LITTLE BIT OF HIGH-LEVEL
14:20:53 2 EXTRACTION THAT DO INTERESTING THINGS WITH THAT
14:20:55 3 DATA BUT THERE ARE ALSO SOFTWARE KIND OF IN BETWEEN
14:20:58 4 THAT USER INTERFACE LAYER AND THAT HARDWARE THAT
14:21:00 5 DEALS WITH THE ACTUAL POINTS OF DATA COMING OUT AND
14:21:03 6 INTERPRETING THEM APPROPRIATELY AND THAT'S WHERE
14:21:05 7 THE '828 PATENT COMES IN.

14:21:07 8 IN TERMS OF HARDWARE, THE CLASS OF
14:21:11 9 HARDWARE THAT WE'RE INTERESTED IN AS IT RELATES TO
14:21:14 10 THESE PATENTS, WHAT IS KNOWN AS CAPACITANCE
14:21:18 11 SENSING, TOUCH SENSORS.

14:21:20 12 AND VERY BROADLY THERE ARE THREE
14:21:23 13 CATEGORIES OF THEM. FIRST OF ALL, THE SIMPLE
14:21:27 14 CATEGORY CALLED SURFACE CAPACITANCE, AND I'LL TALK
14:21:31 15 A BIT ABOUT HOW THAT WORKS IN A SECOND.

14:21:34 16 AND THEN THE MORE SOPHISTICATED
14:21:36 17 TECHNOLOGY WHICH DEALS WITH AN ENTIRE ROW, AN
14:21:39 18 ENTIRE COLUMN OF CAPACITANCE THAT ALLOWS FOR A
14:21:42 19 LITTLE MORE FUNCTIONALITY;

14:21:43 20 AND FINALLY WHAT WE CALL ROW AND COLUMN
14:21:45 21 INTERSECTION CAPACITANCE.

14:21:47 22 AND I'M GOING TO GO THROUGH ALL OF THESE
14:21:49 23 JUST BRIEFLY NOW.

14:21:50 24 SO SURFACE CAPACITANCE TOUCHSCREENS I'LL
14:21:53 25 GIVE YOU THE SIMPLEST FORM. AND THESE ARE WHAT YOU

14:21:56 1 SEE ON YOUR ATM MACHINES, FOR EXAMPLE. AND THEY DO
14:21:59 2 A PRETTY GOOD JOB OF DETECTING A SINGLE POINT OF
14:22:03 3 TOUCH AS INDICATED ON THE SCREEN.

14:22:04 4 SO IF YOU JUST WANT FUNCTIONALITY THAT
14:22:06 5 ALLOWS YOU TO CLICK ON ONE BUTTON AT A TIME,
14:22:09 6 SURFACE CAPACITANCE DOES PRETTY WELL.

14:22:12 7 AND WHAT IS SURFACE CAPACITANCE? FROM A
14:22:15 8 SCHEMATIC POINT OF VIEW YOU HAVE SOME KIND OF TOUCH
14:22:18 9 SURFACE THAT YOU APPLY CONDUCTIVE COATING TO AND
14:22:22 10 YOU APPLY CURRENT ON THE FOUR CORNERS OF THAT
14:22:25 11 CONDUCTIVE COATING.

14:22:26 12 AND WHEN THE FINGER TOUCHES THE -- THAT
14:22:31 13 SURFACE, THAT TOUCH SURFACE, EFFECTIVELY A
14:22:34 14 CAPACITOR IS FORMED BETWEEN THE FINGER AND THAT
14:22:38 15 CONDUCTIVE SURFACE AND IT DRAWS CURRENT FROM THE
14:22:41 16 FOUR CORNERS THAT YOU HAVE PUT CURRENT ON.

14:22:43 17 AND WHAT I HAVE SHOWN YOU HERE IS THE
14:22:46 18 ELLIPSE JUST DISPLAYING THE POINT OF CONTACT OF
14:22:48 19 THAT FINGER.

14:22:49 20 AND BY MEASURING THE CHANGES IN CURRENT,
14:22:53 21 THE FOUR CORNERS, YOU CAN EFFECTIVELY ISOLATE THE X
14:22:58 22 AND Y POSITION OF THAT POINT OF CONTACT.

14:23:02 23 AND THIS WORKS, AS I SAID, QUITE WELL FOR
14:23:04 24 A SINGLE POINT OF CONTACT.

14:23:05 25 AND THE WAY IT BREAKS DOWN IS THAT IF YOU

14:23:07 1 HAVE TWO TOUCHES AND WHAT I HAVE SHOWN HERE ON THE
14:23:10 2 SCREEN IS TWO HYPOTHETICAL TOUCHES SHOWN BY THE RED
14:23:14 3 ELLIPSIS AND ONE TO THE BOTTOM LEFT, AND ONE TO THE
14:23:17 4 TOP RIGHT, AND WHAT THIS SYSTEM DOES IS WHEN IT
14:23:20 5 GETS TWO TOUCHES, IT CANNOT DISTINGUISH THOSE TWO
14:23:23 6 TOUCHES IN THE PENALTY AND INSTEAD IT REPORTS THE
14:23:27 7 AVERAGE LOCATION, WHICH I HAVE SHOWN IN THE PURPLE,
14:23:30 8 NEAR THE PURPLE ELLIPSE.

14:23:33 9 AND OBVIOUSLY THIS IS NOT THE CORRECT
14:23:36 10 INTERPRETATION OF WHERE THOSE TWO TOUCHES ARE, AND
14:23:38 11 SO THAT'S FUNDAMENTALLY THE PROBLEM OF THE
14:23:41 12 LIMITATION OF SURFACE CAPACITANCE TOUCHSCREENS.

14:23:44 13 NOW, IMPROVING UPON THIS IS A TECHNOLOGY
14:23:47 14 CALLED ENTIRE ROW AND ENTIRE COLUMN CAPACITANCE.
14:23:50 15 IF YOU RECALL THE PREVIOUS SLIDE, THE ENTIRE TOUCH
14:23:53 16 SURFACE WAS ENERGIZED BY CURRENT ACROSS THE WHOLE
14:23:57 17 SURFACE, THE WHOLE SURFACE WAS JUST ONE SINGLE
14:24:01 18 CONDUCTOR.

14:24:01 19 HERE INSTEAD OF A SINGLE CONDUCTOR, THE
14:24:04 20 OVERLAY A SERIES OF ROWS OF CONDUCTORS AND COLUMNS
14:24:09 21 OF CONDUCTORS BUT PERPENDICULAR TO ONE ANOTHER AND
14:24:13 22 ANY TIME YOU TOUCH ON ANY ONE LOCATION HERE, IT
14:24:16 23 ESSENTIALLY ACTIVATES THE APPROPRIATE ROWS AND
14:24:18 24 COLUMNS THAT ARE BEING TOUCHED.

14:24:20 25 SO THE CAPACITANCE OF THE ENTIRE ROW AND

14:24:23 1 COLUMNS WILL CHANGE AND JUST FOR ILLUSTRATION
14:24:26 2 PURPOSES ON THIS SLIDE I HAVE SHOWN THE ONE ROW AND
14:24:30 3 ONE COLUMN BEING ACTIVATED.

14:24:32 4 NOW, IF I HAVE TWO FINGERS, IT ACTIVATES
14:24:38 5 THE APPROPRIATE NUMBER OF ROWS AND COLUMNS.

14:24:39 6 BUT A PROBLEM OCCURS WHEN I PUT TWO
14:24:42 7 FINGERS ON THE SAME ROW, FOR EXAMPLE, WE CANNOT
14:24:44 8 DISTINGUISH WHERE THEY ARE. YOU CAN'T REALLY TELL
14:24:48 9 BECAUSE THEY'RE BOTH ON THE SAME ROWS. SO YOU GET
14:24:50 10 ONE ROW AND TWO COLUMNS BEING ACTIVATED.

14:24:52 11 NOW, THE OTHER PROBLEM OCCURS IS IF I DO
14:24:55 12 THIS, WHERE THEY ARE TWO VERY DIFFERENT LOCATIONS,
14:24:58 13 I HAVE TWO ROWS AND TWO COLUMNS ACTIVATED, AND FINE
14:25:01 14 AND I HAVE TWO POSITIONS.

14:25:02 15 BUT THE PROBLEM IS IF YOU WATCH AND IF I
14:25:05 16 MOVE MY FINGERS TO TWO VERY DIFFERENT LOCATIONS
14:25:08 17 THAT HAPPEN TO INTERSECT THE EXACT SAME ROWS AND
14:25:13 18 COLUMNS LIKE THIS, SO IF I FLIP THEM BACK AND
14:25:17 19 FORTH, THOSE TWO IN ONE POSITION, AND THE SAME ROWS
14:25:20 20 AND COLUMNS ARE ACTIVATED WHEN I MOVE MY FINGERS TO
14:25:24 21 A VERY DIFFERENT SET OF LOCATIONS.

14:25:27 22 THE SYSTEM CANNOT DISTINGUISH BETWEEN
14:25:29 23 THESE TWO. SO THIS SITUATION IS AN AMBIGUOUS
14:25:32 24 SITUATION THAT THIS TECHNOLOGY CAN SIMPLY NOT DEAL
14:25:34 25 WITH IT. IT WILL REPORT THE SAME VALUES FOR BOTH

14:25:37 1 OF THESE VERY DIFFERENT TOUCHES .

14:25:38 2 THE OTHER PROBLEM THAT OCCURS WITH THIS
14:25:42 3 ENTIRE ROW AND ENTIRE COLUMN TECHNOLOGY IS IF I
14:25:45 4 HAVE A LARGE TOUCH, FOR EXAMPLE, A THUMB AS I HAVE
14:25:50 5 SHOWN HERE THAT ACTIVATES SEVERAL COLUMNS OF
14:25:53 6 SENSORS AT A TIME AND THEN I HAVE A SMALLER TOUCH
14:25:55 7 THAT FALLS WITHIN SOME OF THE ROWS OR COLUMNS OF
14:25:58 8 THAT LARGER TOUCH, THE LARGER TOUCH ESSENTIALLY
14:26:01 9 MASKS THE HEIGHT OF THE SMALLER TOUCH IN THIS
14:26:05 10 EXAMPLE .

14:26:05 11 SO WHILE I CAN TELL THE HORIZONTAL -- THE
14:26:09 12 VERTICAL POSITION IN THE SMALLER TOUCH, IT'S
14:26:12 13 IMPOSSIBLE TO TELL WHERE THE HORIZONTAL POSITION
14:26:15 14 IS. SO THAT'S ANOTHER SHORTCOMING OF THIS KIND OF
14:26:17 15 HARDWARE .

14:26:18 16 NOW, TO IMPROVE UPON THIS IS A TECHNOLOGY
14:26:23 17 WE CALL ROW COLUMN INTERSECTION CAPACITANCE. SO
14:26:29 18 HERE WE HAVE ROWS OF CONDUCTIVE MATERIAL CALLED
14:26:31 19 DRIVE ROWS AND OVERLAY THAT WITH AN INSULATING --
14:26:35 20 TRANSPARENT INSULATING LAYER, TRANSPARENT SO YOU
14:26:37 21 CAN SEE THROUGH IT. OVERLAY THAT WITH COLUMNS OF
14:26:40 22 CONDUCTIVE MATERIAL IN THE PERPENDICULAR DIRECTION
14:26:43 23 AND WE CALL THESE SENSE COLUMNS .

14:26:45 24 AND WHAT THIS TECHNOLOGY DOES WHEN YOU
14:26:47 25 TOUCH IT, INSTEAD OF ACTIVATING THE ENTIRE ROW AND

14:26:51 1 ENTIRE COLUMN, IT JUST ACTIVATES THE INTERSECTION
14:26:54 2 POINTS. YOU MEASURE CAPACITANCE AT THE
14:26:57 3 INTERSECTIONS OF THE ROWS AND COLUMNS THAT ARE ON
14:27:00 4 THE TOUCH PAD.

14:27:01 5 AND WHAT THIS DOES IS THAT IT SOLVES SOME
14:27:03 6 OF THE SHORTCOMINGS OF THE ENTIRE ROW AND ENTIRE
14:27:07 7 COLUMN TECHNOLOGY THAT I JUST TALKED ABOUT.

14:27:10 8 SO, FOR EXAMPLE, HERE TWO FINGERS AND TWO
14:27:13 9 DIFFERENT LOCATIONS AND I HAVE TWO REPORTED
14:27:15 10 POSITIONS.

14:27:17 11 THE SAME -- REMEMBER THE PREVIOUS
14:27:20 12 TECHNOLOGY, IF YOU FLIP IT AROUND IT DIDN'T WORK
14:27:22 13 AND IN THIS CASE YOU DO GET THE CORRECT
14:27:25 14 INTERPRETATION.

14:27:28 15 SO THAT'S WHAT THE BROAD OVERVIEW OF THE
14:27:30 16 FIELD IS THERE.

14:27:31 17 NOW, LET ME TALK ABOUT THE '607 PATENT,
14:27:34 18 WHICH IS THE MULTI POINT TOUCHSCREEN. AND THIS WAS
14:27:38 19 FILED IN 2004 AND ISSUED TO HOTELLING, ET AL.

14:27:45 20 AND JUST TO ILLUSTRATE THIS PATENT A
14:27:47 21 LITTLE BIT, I HAVE CREATED A SERIES OF GRAPHICS.
14:27:52 22 ON THE LEFT-HAND SIDE OF THE SCREEN IS A SCHEMATIC
14:27:54 23 OF A HUMAN HAND AND ON THE BOTTOM IS A YELLOW BAR
14:27:58 24 INTENDED TO REPRESENT A TOUCH SURFACE.

14:28:00 25 IN THE MIDDLE OF THE SCREEN IS AN ARRAY

14:28:02 1 OF DATA VALUES CORRESPONDING TO THE DATA VALUES ON
14:28:05 2 THE TOUCHSCREEN HERE.

14:28:07 3 AND ON THE RIGHT IS A THREE-DIMENSIONAL
14:28:10 4 VISUALIZATION JUST TO GIVE YOU A SENSE OF HOW THAT
14:28:12 5 DATA IS CHANGING AS THE USER TOUCHES THE
14:28:16 6 TOUCHSCREEN.

14:28:16 7 SO AS THE USER'S HANDS COMES CLOSER TO
14:28:20 8 THE CAPACITANCE TOUCH SENSOR, EVEN BEFORE TOUCHING
14:28:25 9 THE CAPACITANCE FIELD STARTS TO GET PERTURBED AND
14:28:29 10 YOU START TO SEE SOME ZERO VALUES THERE. AND I'VE
14:28:32 11 HIGHLIGHTED THE VALUES 40 WHICH SEEMS TO BE THE
14:28:34 12 PEAK AND ON THE RIGHT YOU SEE THE PEAK VALUES
14:28:37 13 STARTING TO PERCOLATE UP.

14:28:38 14 AS THE HAND GETS CLOSER TO THE SCREEN,
14:28:41 15 THE VALUES START TO INCREASE IN INTENSITY AND
14:28:47 16 FINALLY WHEN IT TOUCHES YOU ESSENTIALLY GET THESE
14:28:50 17 INTENSITY VALUES THAT ARRANGE FROM A PEAK TO A FALL
14:28:56 18 OFF AROUND EACH OF THE FINGER TOUCHES.

14:28:58 19 SO THIS IS JUST TO ILLUSTRATE WHAT
14:29:01 20 ACTUALLY IS HAPPENING IN THIS TECHNOLOGY.

14:29:05 21 AND LIKE I SAID BEFORE, THIS IS A ROW
14:29:08 22 COLUMN INTERSECTION OF TECHNOLOGIES AND IT'S ABLE
14:29:13 23 TO DETECT DISTINCT TOUCHES AT DIFFERENT LOCATIONS
14:29:16 24 WITHOUT ANY AMBIGUITY.

14:29:18 25 NOW, HOW IS THIS CONSTRUCTED?

14:29:22 1 ESSENTIALLY IT'S CONSTRUCTED BY OVERLAYING TWO SETS
14:29:25 2 OF TRANSPARENT PARALLEL CONDUCTIVE LINES ON TOP OF
14:29:28 3 EACH OTHER WITH TWO INTERVENING PIECES OF MATERIAL.

14:29:33 4 SO LET ME JUST SHOW THIS. YOU HAVE SOME
14:29:36 5 DISPLAY THAT YOU WANT TO OVERLAY A TOUCH SENSE
14:29:39 6 AROUND, YOU PUT A TRANSPARENT INSULATING LAYER ON
14:29:42 7 IT; AND OVERLAY A SERIES OF TRANSPARENT CONDUCTIVE
14:29:46 8 LINES IN ONE DIRECTION AND AN ADHESIVE LAYER THAT
14:29:52 9 IS TRANSPARENT JUST TO HOLD IT ALL TOGETHER;
14:29:54 10 ANOTHER TRANSPARENT INSULATING LAYER ON TOP OF
14:30:02 11 THAT; ANOTHER SET OF TRANSPARENT CONDUCTIVE LINES
14:30:07 12 PERPENDICULAR, AND THESE ARE SEPARATE FROM THE ONES
14:30:12 13 UNDERNEATH FROM THE ONES IN BETWEEN; AND ANOTHER
14:30:14 14 TRANSPARENT ADHESIVE LAYER TO PUT THAT TOGETHER;
14:30:18 15 AND FINALLY YOU PUT A FINAL TRANSPARENT INSULATING
14:30:22 16 LAYER AT THE TOP.

14:30:23 17 AND EFFECTIVELY WHAT YOU GET IS THIS
14:30:27 18 TOUCH SENSOR WHERE ALL OF THE ELEMENTS HAVE TO BE
14:30:29 19 TRANSPARENT AND THAT'S EFFECTIVELY WHAT THE '607
14:30:33 20 PATENT TALKS ABOUT.

14:30:35 21 THE '129 PATENT IS WHAT WE CALL THE
14:30:37 22 SHIELDING LAYER PATENT. AND THIS WAS FILED IN
14:30:43 23 JANUARY OF 2007 ISSUED TO HOTELLING, ET AL.

14:30:48 24 AND THIS PATENT ADDRESSES THE PROBLEM
14:30:50 25 THAT DISPLAYS HAVE ELECTRICAL FIELDS AND THEY CAN

14:30:57 1 INTERFERE WITH THE ELECTRICAL SENSING OF THE TOUCH
14:31:00 2 SENSOR ON TOP OF IT.

14:31:02 3 AND THE WAY IT SOLVES THIS IS BY PUTTING
14:31:04 4 AN ELECTRICAL SHIELD BETWEEN THE DISPLAY AND THE
14:31:08 5 TOUCH SENSOR BUT INSTEAD OF PUTTING A SEPARATE
14:31:10 6 ELECTRICAL SHIELD, IT ESSENTIALLY USES THE FIRST
14:31:13 7 SET OF CONDUCTORS, THE FIRST ROW OF CONDUCTORS,
14:31:18 8 MAKES THEM WIDER AND AS A RESULT THEY ACT AS SENSOR
14:31:21 9 ELEMENTS AS WELL AS AN ELECTRICAL SHIELD. SO IT
14:31:24 10 MAKES THAT FIRST LAYER OF CONDUCTING ELEMENTS DUAL
14:31:28 11 PURPOSE SO TO SPEAK AND AGAIN THIS HAS TO BE
14:31:30 12 TRANSPARENT.

14:31:31 13 SO THAT'S THE 129 SHIELDING LAYER PATENT
14:31:34 14 IN A NUTSHELL.

14:31:35 15 FINALLY WE WANT TO TALK ABOUT
14:31:39 16 INTERPRETING THE DATA THAT COMES OUT OF THIS
14:31:42 17 HARDWARE, AND WE'LL TALK ABOUT THE '828 PATENT
14:31:46 18 WHICH WE CALL ELLIPSE FITTING. THIS WAS FILED IN
14:31:52 19 1998 IN JANUARY ISSUED TO WESTERMAN, ET AL.

14:31:56 20 FIRST LET'S -- A BIT OF BACKGROUND. WHY
14:32:00 21 ELLIPSE? IF YOU LOOK AT A HUMAN HAND AND THINK
14:32:03 22 ABOUT WHAT GEOMETRIC SHAPE MIGHT DO A REASONABLE
14:32:07 23 JOB OF APPROXIMATING THE TOUCHES OF THE HUMAN HAND
14:32:11 24 ON A FLAT DISPLAY? ELLIPSES SEEMS TO BE A PRETTY
14:32:14 25 GOOD FIT AND HERE IS THE QUICK SCHEMATIC.

14:32:17 1 THE PARTS OF THE HAND THAT TOUCH THE
14:32:19 2 SCREEN OR THE TOUCH SENSOR ARE TYPICALLY THE
14:32:22 3 FINGERPRINTS AND SOMETIMES THE PALM WHICH THERE ARE
14:32:26 4 TYPICALLY TWO PARTS OF THE PALM. AND ELLIPSES DO A
14:32:29 5 PRETTY GOOD JOB OF BEING A REASONABLE APPROXIMATION
14:32:32 6 OF THAT RATHER THAN THE ARBITRARY SHOE WITH
14:32:36 7 HATCHES.

14:32:36 8 SO WHAT HAPPENS IN THE '828 PATENT, THE
14:32:40 9 TOUCH HARDWARE, AS I JUST DISCUSSED, SENSES THE
14:32:43 10 TOUCH, WHETHER IT'S ONE POINT OR TWO POINTS.

14:32:45 11 IT GENERATES SOME RAW TOUCH DATA. AND I
14:32:48 12 HAVE SHOWED THAT IN THE GREY SCALE ON THIS ARRAY OF
14:32:51 13 DOTS UP ON THE TOP RIGHT. SO YOU HAVE GOT TWO
14:32:56 14 GLOBS OF TOUCH DATA AND SOME ADDITIONAL STRAY DATA
14:32:59 15 POINTS THAT ARE TYPICALLY SOME KIND OF AN
14:33:01 16 ELECTRICAL NOISE THAT YOU WANT TO CLEAN UP.

14:33:03 17 SO THE PATENT TALKS ABOUT CLEANING UP,
14:33:06 18 THAT, REMOVING THAT NOISE AND YOU GET WHAT IS
14:33:11 19 CALLED THE CLEANED UP IMAGE, AND IT'S IN THE MIDDLE
14:33:15 20 OF THAT RIGHT-HAND SIDE. AND IT ALSO FURTHER
14:33:18 21 SEGMENTS THE DATA POINTS INTO GROUPS.

14:33:21 22 AND FINALLY IT FITS IN THE ELLIPSE TO
14:33:25 23 EACH OF THOSE GROUPS TO TRYING TO OPTIMIZE FOR THE
14:33:29 24 CENTRALLY MOST INTENSE PART OF THE TOUCHES.

14:33:32 25 NOW, AN ELLIPSE MATHEMATICALLY CAN BE

14:33:36 1 DESCRIBED BY SEVERAL PARAMETERS. AND HERE'S
14:33:39 2 ELLIPSE THAT I HAVE PLOTTED ON A CARTESIAN SCALE.

14:33:45 3 FIRST OF ALL, WE'RE INTERESTED IN THE
14:33:46 4 CENTROID, IN THE CENTER OF THE ELLIPSE. FOR
14:33:49 5 EXAMPLE, THE X, Y LOCATION WOULD BE 4, 5.

14:33:52 6 AND THE NEXT PARAMETER WOULD BE THE MAJOR
14:33:56 7 AXIS OF THE ELLIPSE, IN OTHER WORDS, THE LONG AXIS
14:34:00 8 OF THE ELLIPSE AND THE VALUE 9 THERE IS REALLY JUST
14:34:03 9 THE LENGTH OF THE MAJOR AXIS.

14:34:05 10 THE MINOR AXIS IS THE AXIS THAT IS
14:34:10 11 PERPENDICULAR TO THE MAJOR AXIS AND IN THIS EXAMPLE
14:34:12 12 IT HAS A VALUE OF ABOUT 5.

14:34:18 13 THE OTHER PARAMETER THAT IS OF INTEREST
14:34:21 14 TYPICALLY IS HOW IS THE ELLIPSE ORIENTED ABOUT ONE
14:34:27 15 OF THE CARTESIAN -- AND IT'S TWO-DIMENSIONAL
14:34:30 16 ELLIPSES. AND IN THIS EXAMPLE IT HAS AN
14:34:33 17 ORIENTATION ABOUT 60 DEGREES OF THE MAJOR AXIS AND
14:34:38 18 SO THESE ARE SOME OF THE PARAMETERS ONE IS
14:34:39 19 INTERESTED IN WHEN TRYING TO FIT AN ELLIPSE.

14:34:41 20 AND JUST SOME EXAMPLES FROM HYPOTHETICAL
14:34:44 21 DATA THAT COULD COME OUT OF A TOUCHSCREEN.

14:34:47 22 ON THE LEFT-HAND SIDE A REASONABLY LARGE
14:34:51 23 TOUCH THAT HAPPENS ROUGHLY YOU HAVE A CENTROID OF 5
14:34:54 24 AND 5, A MAJOR AND MINOR AXIS, AN ORIENTATION THAT
14:34:59 25 SEEMS TO BE ESSENTIALLY UPRIGHT 90 DEGREES. THE

14:35:03 1 ONE IN THE MIDDLE IS A LITTLE BIT SKEWED. IT HAS
14:35:06 2 AN ORIENTATION ABOUT 60 DEGREES THAT FITS TO THAT
14:35:11 3 DATA.

14:35:11 4 AND ON THE RIGHT-HAND SIDE YOU HAVE VERY
14:35:13 5 LITTLE DATA. YOU MIGHT END UP SAYING I CAN'T
14:35:16 6 CALCULATE THE ORIENTATION AND IT'S GOING TO DEFAULT
14:35:19 7 TO SOMETHING AND THE MAJOR AND MINOR AXIS WOULD BE
14:35:21 8 PROBABLY BE EQUAL TO ONE ANOTHER AND TO THE SIDE
14:35:25 9 AND IT WOULD BE CALCULATED THE USUAL WAY.

14:35:27 10 SO THESE ARE THE KIND OF PARAMETER
14:35:30 11 FITTINGS THAT YOU WOULD WANT TO DO WHEN YOU'RE
14:35:33 12 DOING ELLIPSE FITTING.

14:35:33 13 IN APPLIED MATH THERE ARE SEVERAL METHODS
14:35:39 14 FOR FITTING AN ELLIPSE THAT IS KNOWN IN THE ART.
14:35:41 15 ONE IS IF YOU DON'T INTEND TO FIT ALL OF THE
14:35:43 16 PARAMETERS YOU HAVE AN APPROXIMATION LIKE I
14:35:47 17 MENTIONED IN MY EXAMPLE. IF I MIGHT NOT -- IF I'M
14:35:54 18 NOT ABLE TO COMPUTE ORIENTATION, I MIGHT JUST
14:35:58 19 DEFAULT TO ZERO ALL OF THE TIME, FOR EXAMPLE.

14:36:00 20 AND ANOTHER TECHNIQUE IS KNOWN AS ERROR
14:36:04 21 MINIMIZATION. YOU SIMPLY FIT AN ELLIPSE TO A
14:36:08 22 CURVE. SO YOU HAVE AN ARBITRARY CURVE AND ON EACH
14:36:12 23 POINT OF THAT CURVE RELATIVE TO THE NEAREST POINT
14:36:16 24 ON THE ELLIPSE, YOU FIGURE OUT HOW MUCH DEVIATION
14:36:19 25 THERE IS AND YOU TRY TO MINIMIZE THAT DEVIATION TO

14:36:22 1 TRY TO GET THE BEST FIT.

14:36:23 2 ANOTHER TECHNIQUE IS TO TRY TO DO EDGE
14:36:26 3 DETECTION AND THIS IS BASICALLY GOING AROUND AND
14:36:29 4 TRYING TO FIGURE OUT THE DATA WHAT ARE THE EDGES
14:36:31 5 AND IF YOU ACCUMULATE THEM ALTOGETHER YOU END UP
14:36:35 6 WITH AN ELLIPZOID LIKE SHAPE.

14:36:38 7 DIAMETER BISECTION IS ANOTHER TECHNIQUE
14:36:42 8 THAT SAYS IF YOU TAKE ALL OF THE POINTS ON THE
14:36:44 9 OUTSIDE OF THE PARAMETER OF THE DATA AND YOU LOOK
14:36:48 10 AT THE POINTS THAT ARE NOT PARALLEL TO ONE ANOTHER
14:36:51 11 IN THE OPPOSITE SIDES, ESSENTIALLY I'M LIKELY TO
14:36:55 12 GET THE DIAMETER, I MAY NOT, BUT IF YOU DO FOR EACH
14:36:59 13 PAIR OF THOSE POINTS COMPUTE THESE VECTORS AND THEN
14:37:02 14 YOU TRY AND FIGURE OUT WHICH ONES MEET IN THE
14:37:05 15 MIDDLE, THAT'S LIKELY TO BE THE DIAMETERS AND THEN
14:37:08 16 YOU WILL GET A REASONABLE APPROXIMATION OF THE
14:37:11 17 MAJOR AND MINOR AXIS.

14:37:12 18 FOR EXAMPLE, THE CHORD TANGENT METHOD IS
14:37:15 19 A DETAILED VARIANT ON THAT WHERE THEY'RE
14:37:18 20 OVERLAPPING ELLIPSIS AND YOU DON'T HAVE ALL OF THE
14:37:22 21 INFORMATION. YOU MAY WANT TO DO THAT COMPUTATION
14:37:24 22 BY LOOKING AT THE TANGENTS TO THOSE POINTS RATHER
14:37:27 23 THAN THE POINTS EFFECTED IN BETWEEN.

14:37:33 24 AND THE OTHER FINALLY THE LAST TECHNIQUE
14:37:36 25 I WANT TO TALK ABOUT IS WHAT IS KNOWN AS PRINCIPAL

14:37:38 1 COMPONENT ANALYSIS, AND THIS IS A TECHNIQUE FROM
14:37:41 2 STATISTICS THAT BASICALLY TAKES ANY KIND OF DATA
14:37:43 3 AND SAYS WHAT ARE THE MAJOR DIRECTIONS OR
14:37:48 4 COMPONENTS BY WHICH THE DATA VARIES FROM SOME
14:37:52 5 CENTRAL?

14:37:53 6 AND THAT IS EFFECTIVELY WHAT THE FIRST
14:37:55 7 EMBODIMENT OF THE '828 PATENT TALKS ABOUT. IT'S A
14:37:59 8 FORM OF PRINCIPAL COMPONENT ANALYSIS. IT STARTS
14:38:03 9 OFF AND FOR SAKE OF DISCUSSION HERE, I'M USING THE
14:38:07 10 SAME SCHEMATIC ON THE LEFT OF A HYPOTHETICAL
14:38:12 11 ELLIPSE AND ON THE RIGHT I HAVE SOME EQUATIONS FROM
14:38:15 12 COLUMN 26 OF THE PATENT, YOUR HONOR.

14:38:16 13 AND EQUATION 12 THERE, THE FIRST ONE, IS
14:38:20 14 IT COMPUTES $G_{SUB Z}$, WHICH IS REALLY THE SUMMATION
14:38:24 15 OF THE INTENSITIES. SO EACH OF THESE POINTS THAT
14:38:28 16 THE DATA SET HAS, HAS AN INTENSITY VALUE IN
14:38:32 17 ADDITION TO THE X AND Y POSITION AND THIS COMPUTES
14:38:35 18 THE OVERALL INTENSITY.

14:38:36 19 AND THEN IT COMPUTES A CENTROID. THE
14:38:42 20 EQUATION IS 13 AND 14 AS I HAVE SHOWN HERE. AND
14:38:45 21 THIS IS A WEIGHTED CENTROID, A CENTROID OF THE
14:38:48 22 ELLIPSE, WEIGHTED AS TO THE INTENSITY OF THE
14:38:52 23 PIXELS. AND IN THIS CASE FOR THIS EXAMPLE THE
14:38:54 24 CENTROID IS 4 AND 5.

14:38:56 25 SO NOW WE HAVE GOT THE 5 AND THE

14:38:59 1 CENTROID. IT GOES ON TO DO THE NEXT PART OF THE
14:39:02 2 PRINCIPAL COMPONENT ANALYSIS, WHICH IS TERMED IN
14:39:05 3 THE PATENT AS THE UNITARY TRANSFORMATION OF THE
14:39:09 4 COVARIANCE MATRIX.

14:39:11 5 AND WHAT THIS IS, IS THE STANDARD
14:39:13 6 PROCEDURE IN THE COMPONENT ANALYSIS IS IT'S
14:39:17 7 BASICALLY TAKING FOR EVERY DATA POINT IT'S GOING TO
14:39:21 8 COMPUTE THE VARIANCE, THE COVARIANCE, HOW IT VARIES
14:39:21 9 RELATIVE TO THE CENTROID AND THE SIZE THAT WAS
14:39:24 10 PREVIOUSLY CALCULATED AND THEN ORIENT THAT
14:39:27 11 COVARIANCE DATA SUCH THAT THE POINTS THAT ARE MOST
14:39:31 12 VARIANCE -- THAT IS THE LARGEST VARIANCE ARE
14:39:39 13 ORIENTED ON ONE AXIS.

14:39:41 14 AND THAT'S EFFECTIVELY WHAT THESE
14:39:45 15 EQUATIONS DOES IS IT SETS UP THE STAGE FOR THE
14:39:47 16 FINAL CALCULATIONS OF THE REMAINING PARAMETERS
14:39:51 17 WHICH OCCUR IN THE SUBSEQUENT THREE EQUATIONS OF
14:39:57 18 COLUMN 26, WHICH ARE EQUATIONS 19, 20, AND 21.

14:40:03 19 EQUATION 19 IN COLUMN 26 COMPUTES THE
14:40:07 20 MAJOR AXIS FROM THAT PRINCIPAL COMPONENTS THAT WERE
14:40:13 21 PREVIOUSLY CALCULATED. AND THIS IS ESSENTIALLY A
14:40:18 22 COMPUTATION KNOWN AS EIGENVALUE TO COMPENSATION.
14:40:23 23 THAT'S E-I-G-E-N, VALUE. AND YOU DO THAT FOR BOTH
14:40:27 24 THE MAJOR AND THE MINOR AXIS.

14:40:30 25 AND FINALLY THE ORIENTATION IS COMPUTED

14:40:32 1 RELATIVE TO ONE OF THOSE AXES BY THE ARCTAN,
14:40:40 2 A-R-C-T-A-N, COMPUTATION OF EQUATION 21.

14:40:45 3 SO IT'S THIS WHOLE SET OF EQUATIONS IN
14:40:48 4 THE EMBODIMENT THAT EFFECTIVELY DOES THE COMPONENT
14:40:55 5 ANALYSIS TECHNIQUE TO EFFECT SOME DATA.

14:40:57 6 JUST TO WRAP UP HERE, THAT FIRST
14:40:59 7 EMBODIMENT JUST SHOWED THAT ENTIRE COLUMN OR MOST
14:41:02 8 OF THAT COLUMN WHERE THE EQUATIONS COME FROM.

14:41:05 9 AS YOU CAN SEE THE FIRST THREE EQUATIONS
14:41:07 10 WHICH ARE 12, 13, AND 14 THAT I TALKED ABOUT
14:41:11 11 COMPUTES THE SIZE AND THE CENTROID; AND THEN YOU
14:41:13 12 HAVE THE NEXT FOUR EQUATIONS, EQUATION, 15, 16, 17,
14:41:18 13 AND 18 THAT DOES THIS TRANSFORMATION OF THE
14:41:20 14 COVARIANCE; AND THEN WE HAVE GOT THE REMAINING
14:41:23 15 THREE EQUATIONS 19, 20, AND 21 THAT COMPUTES THE
14:41:28 16 MAJOR AXIS, MINOR AXIS, AND THE ORIENTATION.

14:41:31 17 THE COURT: YOU'RE SAYING THE WHOLE THING
14:41:33 18 IS MATHEMATICALLY FITTING ELLIPSE?

14:41:38 19 MR. BALAKRISHNAN: IN THIS EMBODIMENT,
14:41:40 20 YES.

14:41:40 21 THE COURT: OKAY.

14:41:41 22 MR. BALAKRISHNAN: NOW, THERE'S ANOTHER
14:41:42 23 EMBODIMENT IN THE PATENT, WHICH IS THE SECOND
14:41:45 24 EMBODIMENT, WHICH IS ON COLUMN 27 AND IT'S AT LINES
14:41:49 25 1 TO 8.

14:41:50 1 AND IN THIS CASE IT'S DOING SOME OF THE
14:41:53 2 PARAMETER APPROXIMATION THAT I TALKED ABOUT
14:41:56 3 EARLIER.

14:41:56 4 AND IN THIS CASE IT'S SAYING THAT YOU MAY
14:41:59 5 NOT HAVE ENOUGH DATA TO COMPUTE ALL OF THE
14:42:03 6 PARAMETERS. SO IT'S GOING TO COMPUTE THE SIZE AND
14:42:06 7 CENTROID BY USING THE EARLIER EQUATIONS.

14:42:09 8 SO, FOR EXAMPLE, THE SIZE IS COMPUTED
14:42:14 9 USING THE G SUB Z EQUATION, WHICH IS EQUATION 12
14:42:18 10 THAT WE ALREADY TALKED ABOUT AND USING THAT AS A
14:42:21 11 MEASURE OF SIZE. AND ORIENTATION IS SET TO DEFAULT
14:42:28 12 VALUES.

14:42:28 13 SO THIS EXAMPLE THAT I HAVE ON THE LEFT,
14:42:30 14 THE CENTROID IS CALCULATED AS PREVIOUSLY, AND THE
14:42:33 15 MAJOR AND MINOR AXIS ARE BASICALLY DERIVED FROM THE
14:42:37 16 CONTEXT SIZE CALCULATED FROM THE G SUB Z EQUATION
14:42:43 17 12 AND THE ORIENTATION IT'S THE DEFAULT WHICH IS
14:42:46 18 PROBABLY 0 OR 1.

14:42:48 19 SO THAT'S THE SECOND EMBODIMENT OF THE
14:42:51 20 '828 PATENT.

14:42:53 21 THE '828 PATENT --

14:42:56 22 THE COURT: LET ME ASK YOU WITH WHAT YOU
14:42:57 23 HAD AT THE TOP OF COLUMN 27, IS THAT -- WHERE IS
14:43:02 24 SORT OF THE MATHMATICALLY FITTED ELLIPSE?

14:43:08 25 MR. BALAKRISHNAN: I'M NOT SURE WHAT YOU

14:43:10 1 MEAN BY WHERE IT IS, YOUR HONOR, BUT ESSENTIALLY
14:43:12 2 IT'S SAYING THAT ON DATA ARRAYS THEY'RE SMALL WHERE
14:43:16 3 I DON'T HAVE ENOUGH INFORMATION TO DO THE FULL
14:43:19 4 PRINCIPAL COMPONENT ANALYSIS TECHNIQUE IN THE
14:43:22 5 PREVIOUS EMBODIMENT, IT'S GOING TO PROXIMATE SOME
14:43:25 6 OF THOSE VALUES.

14:43:26 7 SO IT'S INSTEAD OF COMPUTING THE MAJOR
14:43:30 8 AND MINOR AXIS USING THE PRINCIPAL COMPONENT
14:43:34 9 ANALYSIS TECHNIQUE, IT'S GOING TO USE G SUB Z WHICH
14:43:38 10 IS THE SIZE AS AN INDICATOR OF THE SIZE WHICH
14:43:42 11 EFFECTIVELY MEANS THE MAJOR AND MINOR AXIS CAN BE
14:43:46 12 COMPUTED FROM THAT AS BEING EQUIVALENT TO ONE
14:43:48 13 ANOTHER.

14:43:49 14 THE CENTROID IS CALCULATED AS YOU WOULD
14:43:52 15 NORMALLY CALCULATE THE CENTROID, AND THEN IT
14:43:56 16 EXPLICITLY SAVES THE ORIENTATION OF THE
14:43:59 17 CALCULATIONS SET TO A DEFAULT VALUE.

14:44:01 18 SO EFFECTIVELY IT IS FITTING AN ELLIPSE
14:44:04 19 EXCEPT THAT ONE OF THE PARAMETERS, WHICH HAPPENS TO
14:44:07 20 BE ORIENTATION, IS DEFAULTED TO A NON-CALCULATING
14:44:09 21 VALUE.

14:44:11 22 BUT THE OTHER VALUES ARE STILL
14:44:13 23 CALCULATING, IT'S JUST IN A DIFFERENT WAY.

14:44:15 24 THE COURT: SO DO YOU STILL HAVE THE
14:44:17 25 UNITARY TRANSFORMATION OF A COVARIANCE MATRIX?

14:44:22 1 MR. BALAKRISHNAN: NO, THAT'S NO LONGER
14:44:23 2 NECESSARY BECAUSE IT SAYS THAT G SUB Z IS A MORE
14:44:26 3 RELIABLE CONTEXT OF SIZE.

14:44:29 4 SO THEY'RE SAYING THAT YOU DON'T HAVE
14:44:31 5 ENOUGH DATA TO COMPUTE THE MAJOR AND MINOR AXIS
14:44:33 6 USING THE MORE COMPLEX PROCEDURE WHICH REQUIRES THE
14:44:38 7 UNITARY TRANSFORMATION OF THE GROUP COVARIANCE
14:44:46 8 MATRIX.

14:44:50 9 THE COURT: SO IS THIS WHAT YOU HAD IN
14:44:52 10 COLUMN 26 AS THE FIRST EQUATIONS COMPUTING SIZE?

14:45:00 11 MR. BALAKRISHNAN: ARE YOU SAYING
14:45:01 12 EQUATIONS 12, 13 AND 14, YOUR HONOR? EQUATION 12
14:45:12 13 COMPUTES THE SIZE AND EQUATIONS 13 AND 14 COMPUTES
14:45:15 14 THE CENTRAL LOCATION.

14:45:49 15 THE COURT: I GUESS YOUR POSITION IS THAT
14:45:51 16 THE MATHEMATICALLY FITTING ELLIPSE WOULDN'T REQUIRE
14:45:55 17 THE UNITARY TRANSFORMATION OF THE COVARIANCE
14:46:00 18 MATRIX, IT'S NOT REQUIRED.

14:46:01 19 MR. BALAKRISHNAN: MY POSITION IS THAT
14:46:03 20 IT'S NOT REQUIRED ALWAYS OF FITTING ELLIPSE.

14:46:08 21 BECAUSE FIRST EMBODIMENT IN THAT METHOD
14:46:10 22 USING THE PRINCIPAL COMPONENT ANALYSIS THAT IS
14:46:13 23 DESCRIBED IN THE FIRST EMBODIMENT ON COLUMN 26, IT
14:46:16 24 DOES REQUIRE THAT STEP, BUT IT'S NOT REQUIRED IN
14:46:19 25 ALWAYS OF FITTING ELLIPSE.

14:46:29 1 THE COURT: DOESN'T THE SPEC SAY THAT THE
14:46:32 2 FITTING REQUIRES THE UNITARY TRANSFORMATION OF THE
14:46:35 3 COVARIANCE?

14:46:37 4 MR. BALAKRISHNAN: ABSOLUTELY IT DOES,
14:46:38 5 YOUR HONOR. IT STATES THAT IN COLUMN 26.

14:46:41 6 THE COURT: YEAH.

14:46:42 7 MR. BALAKRISHNAN: BUT IT'S SAYING THAT
14:46:43 8 IN CONTEXT, THE WAY I READ THE SPECIFICATION, IT'S
14:46:46 9 SAYING THAT IN CONTEXT OF THIS ENTIRE PROCEDURE IN
14:46:48 10 THIS PRINCIPAL COMPONENT ANALYSIS PROCEDURE IT
14:46:51 11 REQUIRES THIS UNITARY TRANSFORMATION OF THE GROUP
14:46:57 12 COVARIANCE MATRIX.

14:46:59 13 THERE'S NO CONTENTION, AS FAR AS I'M
14:47:01 14 CONCERNED, FOR THIS TECHNIQUE THAT ABSOLUTELY
14:47:03 15 REQUIRES THAT, BUT IT DOES NOT SAY THAT THIS IS THE
14:47:06 16 ONLY WAY TO FIT AN ELLIPSE OR THAT ALL METHODS FOR
14:47:10 17 FITTING THE ELLIPSE REQUIRE THE UNITARY
14:47:13 18 TRANSFORMATION OF THE GROUP COVARIANCE MATRIX.

14:47:25 19 THE COURT: OKAY.

14:47:26 20 MR. BALAKRISHNAN: THANK YOU, YOUR HONOR.

14:47:28 21 JUST TO WRAP UP THE '828 PATENT, IN
14:47:32 22 ADDITION TO THE ACTUAL FITTING OF THE ELLIPSE TO
14:47:34 23 THE DATA POINTS, IT ALSO HAS FURTHER TEACHING ON
14:47:38 24 HOW TO TRACK THESE ELLIPSES AS THEY MOVE OVER TIME.

14:47:42 25 SO AS THE FINGERS MOVE ON THE

14:47:44 1 TOUCHSCREEN, FOR EXAMPLE, THE '828 PATENT TEACHES
14:47:48 2 HOW TO KEEP TRACK OF THOSE ELLIPSES AS THEY MOVE,
14:47:51 3 WHICH IS IMPORTANT IN ORDER TO ENABLE THE
14:47:54 4 FUNCTIONALITY THAT WE SAW IN SOME OF THE OTHER USER
14:47:56 5 INTERFACE TOUCH PATENTS THAT WE DISCUSSED EARLIER.

14:48:00 6 SO NOW TO WRAP UP, JUST TO SUMMARIZE, I
14:48:04 7 DISCUSSED THE TECHNOLOGY BEHIND EIGHT OF THESE
14:48:07 8 PATENTS, TWO OF THEM THE BROAD USER INTERFACE
14:48:10 9 PATENTS THAT PREDATE THE TOUCH REVOLUTION, THE '002
14:48:10 10 CONTROL STRIP, THE '891 TIMED WINDOW PATENT.

14:48:21 11 THE THREE TOUCH USER INTERFACE PATENTS:
14:48:22 12 THE '381 RUBBERBANDING AT EDGE; '915 SCROLL OR
14:48:25 13 GESTURE; AND THE '163 TOUCH TO ZOOM AND NAVIGATE.

14:48:27 14 AND FINALLY WITH HARDWARE AND DATA
14:48:30 15 INTERPRETATION PATENTS, NAMELY, THE '607, WHICH IS
14:48:34 16 THE MULTIPOINT TOUCHSCREEN; THE '129, THE SHIELDING
14:48:37 17 LAYER; AND FINALLY, THE '828 ELLIPSE FITTING.

14:48:42 18 AND THAT WRAPS UP MY PRESENTATION.

14:48:44 19 THE COURT: OKAY. THANK YOU.

14:48:46 20 MR. BALAKRISHNAN: THANK YOU.

14:48:47 21 MR. MCELHINNY: IN CLOSING THIS PART OF
14:48:48 22 OUR PRESENTATION, YOUR HONOR, I WOULD LIKE TO JUST
14:48:50 23 MAKE TWO POINTS.

14:48:52 24 ONE IS THAT IT'S, AGAIN, IT'S PART OF OUR
14:48:55 25 THEME, ONE OF THE THINGS THAT MADE THE IPHONE SO

14:48:59 1 FABULOUS WAS THAT IT WAS NOT A SINGLE INVENTION,
14:49:01 2 IT'S NOT A SINGLE STEP FORWARD. IT'S THE
14:49:05 3 EMBODIMENT OF A NUMBER OF CRITICAL INVENTIONS THAT
14:49:08 4 WORK TOGETHER.

14:49:08 5 IN ORDER TO COPY THAT PRODUCT, SAMSUNG
14:49:11 6 HAD TO COPY A FIELD OF PATENTS, AND WE THINK THAT'S
14:49:15 7 THE WAY, THAT IS THE WAY THAT WE'RE TRYING TO
14:49:17 8 PRESENT THE CASE TO YOUR HONOR SO YOU UNDERSTAND
14:49:19 9 THE INTERRELATIONS AND OBVIOUSLY THAT'S THE WAY
14:49:21 10 THAT WE WOULD LIKE TO PRESENT IT TO THE JURY.

14:49:23 11 THE COURT: AND ARE ALL OF THESE -- I'M
14:49:25 12 SORRY TO INTERRUPT YOU.

14:49:26 13 MR. MCELHINNY: SURE.

14:49:26 14 THE COURT: ARE ALL OF THESE PATENTS
14:49:29 15 YOU'RE SAYING WOULD BE EMBODIED BY BOTH THE PHONES
14:49:35 16 AND THE TABLETS?

14:49:36 17 MR. MCELHINNY: YES.

14:49:36 18 THE COURT: OKAY.

14:49:37 19 MR. MCELHINNY: AND, YES, YOUR HONOR.
14:49:38 20 AND THE OTHER POINT, JUST IN TERMS OF PRESENTATION
14:49:39 21 TODAY, OBVIOUSLY WE HAVE THE MARKMAN HEARING ON
14:49:42 22 FRIDAY.

14:49:42 23 THE COURT: UH-HUH.

14:49:43 24 MR. MCELHINNY: WE TRIED VERY HARD TO
14:49:45 25 KEEP DR. BALAKRISHNAN AWAY FROM ARGUING CLAIM

14:49:47 1 CONSTRUCTION AND WE TRIED TO KEEP IT INTO A
14:49:50 2 TUTORIAL LEVEL THAT WOULD BE NECESSARY.

14:49:51 3 AND WE'VE EXCHANGED THE SLIDES AT THE
14:49:52 4 BEGINNING OF THIS, AND OBVIOUSLY THERE'S NOT GOING
14:49:55 5 TO BE OBJECTIONS, BUT THAT'S WHAT OUR GOAL HERE
14:49:57 6 WAS, WAS TO PRESENT THE BACKGROUND AND WE'LL DO THE
14:49:59 7 LEGAL ARGUMENT ON FRIDAY.

14:50:25 8 MR. JOHNSON: SHOULD WE TAKE A BREAK?

14:50:27 9 THE COURT: NO. I THINK MS. RODRIGUEZ
14:50:31 10 WANTS TO KEEP GOING.

14:50:32 11 MR. JOHNSON: THANK YOU, YOUR HONOR. I'M
14:50:33 12 KEVIN JOHNSON, AND I'LL PRESENT THE FIRST PART OF
14:50:36 13 THE TUTORIAL WITH RESPECT TO THE USER INTERFACE
14:50:38 14 PATENTS THAT ARE OWNED AND ASSERTED BY APPLE IN
14:50:41 15 THIS CASE.

14:50:42 16 AND WE, YOUR HONOR, SPECIFICALLY TRIED TO
14:50:43 17 REDUCE THE PATENTS FOR PURPOSES OF THE TUTORIAL TO
14:50:46 18 THOSE PATENTS THAT ARE AT ISSUE FOR THE CLAIM
14:50:50 19 CONSTRUCTION MARKMAN HEARING ON FRIDAY.

14:50:52 20 SO WE DON'T INTEND TO GO THROUGH ALL OF
14:50:55 21 THE APPLE PATENTS BUT ONLY THOSE PATENTS THAT HAVE
14:51:02 22 TERMS THAT HAVE ISSUES ON FRIDAY.

14:51:03 23 THE COURT: THANK YOU.

14:51:04 24 MR. JOHNSON: AND WE DO HAVE SLIDES FOR
14:51:06 25 BOTH THE SAMSUNG PATENTS AND THE APPLE PATENTS.

14:51:12 1 THE COURT: SURE.

14:51:13 2 MR. JOHNSON: AND I HAVE ALSO SOME FOR
14:51:16 3 THE CLERKS IF I MAY.

14:51:16 4 THE COURT: YES, PLEASE.

14:51:28 5 MR. JOHNSON: AS I MENTIONED, THERE ARE
14:51:29 6 THREE USER INTERFACE PATENTS THAT I INTEND TO
14:51:33 7 ADDRESS, AND MR. VERHOEVEN WILL THEN ADDRESS THE
14:51:35 8 THREE TOUCHSCREEN PATENTS.

14:51:37 9 THE COURT: OKAY.

14:51:38 10 MR. JOHNSON: AND STARTING OFF WHERE
14:51:40 11 APPLE LEFT OFF, THE '002 PATENT IS THE FIRST PATENT
14:51:44 12 THAT WE ADDRESS AND WE CALL IT THE CONTROL WINDOW
14:51:46 13 PATENT. IT WAS FILED IN MARCH OF 1997, ISSUED IN
14:51:52 14 2002.

14:51:52 15 AND BASICALLY IT DESCRIBES A CONTROL
14:51:55 16 WINDOW THAT SHOWS SUCH ITEMS AS A BATTERY LIFE, THE
14:52:00 17 SCREEN BRIGHTNESS, VOLUME, OTHER TYPES OF STATUS
14:52:03 18 INFORMATION.

14:52:03 19 AND THE CONTROL WINDOW IS DISPLAYED ON
14:52:07 20 TOP OF THE OTHER WINDOWS THAT MAY BE GENERATED.

14:52:09 21 JUST AS AN EXAMPLE IN TERMS OF LOOKING AT
14:52:12 22 WHAT IS A CONTROL WINDOW, HERE ON SLIDE 5, AND IN
14:52:16 23 THE BOOK OF SLIDES THERE ARE TWO TABS, THERE'S A
14:52:20 24 SAMSUNG TAB AND APPLE TAB. SO I'LL BE REFERRING TO
14:52:24 25 THE SLIDES IN THE APPLE TAB.

14:52:26 1 THE COURT: OKAY.

14:52:26 2 MR. JOHNSON: SLIDE 5 SHOWS JUST A SCREEN
14:52:28 3 SHOT FROM WINDOWS USED ON, YOU KNOW, MOST OF THE
14:52:31 4 COMPUTERS IN THIS COURTROOM. AND WHAT WE SEE AT
14:52:36 5 THE BOTTOM OF THIS SLIDE IS AN EXAMPLE OF THE
14:52:38 6 CONTROL WINDOW. AND IT SHOWS THAT YOU CAN USE THE
14:52:40 7 CONTROL WINDOW TO LAUNCH, FOR EXAMPLE, INTERNET
14:52:43 8 EXPLORER OVER HERE ON THE LEFT-HAND SIDE YOU CAN
14:52:45 9 CHECK THE STATUS IN THE SMALL RIGHT-HAND SIDE HERE
14:52:49 10 OF THE VOLUME CONTROL AND WHETHER YOU'RE CONNECTED
14:52:51 11 TO WI-FI. THINGS OF THAT NATURE.

14:52:56 12 SO IT CAN BE USED TO CHECK THE STATUS BUT
14:52:59 13 ALSO TO LAUNCH A PROGRAM LIKE INTERNET EXPLORER
14:53:02 14 OVER HERE AND/OR YOU MIGHT FIND OTHER TYPES OF
14:53:05 15 PROGRAMS LIKE EXCEL OR MICROSOFT WORD.

14:53:09 16 SLIDE 6 SHOWS AN EXAMPLE OF AN
14:53:11 17 APPLICATION WINDOW. WE SEE HERE JUST THAT THE COPY
14:53:14 18 OF THE '002 PATENT AS IT APPEARS IN ADOBE ACROBAT.

14:53:20 19 AND WHAT YOU SEE TYPICALLY ON A DESKTOP,
14:53:23 20 MUCH LIKE THE DESKTOP IN FRONT OF US, IS -- ARE
14:53:27 21 DOCUMENTS THAT ARE ARRANGED ON TOP OF EACH OTHER.

14:53:29 22 SO WE HAVE ON THE BACKGROUND YOU HAVE THE
14:53:32 23 ADOBE ACROBAT DOCUMENT AND IN THE FOREGROUND A WORD
14:53:37 24 DOCUMENT WHICH IS A NEWSLETTER. AND SO THESE
14:53:39 25 WINDOWS ARE STACKED ON TOP OF EACH OTHER, YET THE

14:53:41 1 CONTROL WINDOW APPEARS ON TOP OF EACH OF THESE.

14:53:47 2 IN 1992, JUST TO DESCRIBE SORT OF THE
14:53:50 3 STATE OF THE ART, IN 1992, NEXTSTEP OPERATING
14:53:54 4 SYSTEM 3.0 ALSO HAD A CONTROL WINDOW DOWN THE
14:53:58 5 RIGHT-HAND SIDE HERE AS THE EXAMPLE, WHICH SHOWED
14:54:00 6 THE ABILITY TO EITHER LAUNCH CONTROL PROGRAMS OR TO
14:54:06 7 CHECK STATUS.

14:54:07 8 FOR EXAMPLE, YOU COULD CHECK ON THIS
14:54:08 9 LITTLE NEXT -- YOU CAN CLICK ON THIS LITTLE NEXT
14:54:12 10 BOX AND IT WOULD PULL UP THE WINDOW DOWN BELOW
14:54:15 11 WHICH ALLOWED YOU TO SEARCH ON YOUR COMPUTER HARD
14:54:19 12 DRIVE LOOKING FOR FILES.

14:54:20 13 IF I WANTED TO FIND A PARTICULAR PAPER
14:54:22 14 THAT I HAD WRITTEN ON MY HARD DRIVE OR STORED AN
14:54:25 15 EXCEL SPREADSHEET, I CAN CLICK ON THIS CONTROL
14:54:27 16 WINDOW AND STATUS. AND THIS IS VERY SIMILAR TO
14:54:30 17 LAUNCHING INTERNET EXPLORER OR LAUNCHING MICROSOFT
14:54:34 18 WORD OR LAUNCHING THE FINDER.

14:54:36 19 YOU CAN CLICK ON THE ICON JUST BELOW THAT
14:54:38 20 WHICH WOULD SHOW THAT YOU CAN LAUNCH THE CALENDAR
14:54:41 21 PROGRAM, YOU CAN LAUNCH E-MAIL, YOU CAN DO A LITTLE
14:54:44 22 BIT OF PAINTING, CHECK YOUR PASSWORDS. AND WHAT
14:54:47 23 YOU SEE OVER HERE ARE EXAMPLES OF APPLICATION
14:54:51 24 WINDOWS THAT ALSO, YOU KNOW, APPEARED IN THE NEXT
14:54:54 25 STEP OPERATING SYSTEM.

14:54:55 1 THE '002 PATENT TALKS ABOUT BOTH
14:55:00 2 APPLICATION WINDOWS AND THE CONTROL WINDOWS. AND
14:55:03 3 THIS IS FIGURE 2A FROM THE PATENT, AND IT SHOWS
14:55:06 4 MUCH LIKE THE EXAMPLE THAT WE JUST LOOKED AT
14:55:09 5 EXAMPLES OF APPLICATIONS. AND THIS IS RIGHT HERE
14:55:13 6 WE SEE THE ABILITY TO LAUNCH OTHER PROGRAMS FROM
14:55:18 7 THIS APPLICATION WINDOW.

14:55:19 8 FOR EXAMPLE, YOU CAN LAUNCH WORD, OR YOU
14:55:21 9 CAN LAUNCH THE MOVIE PLAYER OVER HERE. YOU CAN
14:55:24 10 CHECK THE -- YOUR MODEM, AND THEN THERE'S ANOTHER
14:55:28 11 APPLICATION WINDOW DOWN HERE WHICH DESCRIBES HOW
14:55:31 12 MUCH MEMORY IS LEFT IN THE DISK, HOW MANY ITEMS ARE
14:55:35 13 IN THIS PARTICULAR FOLDER AS WELL AS HOW MUCH
14:55:38 14 MEMORY IS AVAILABLE STILL ON THE DISK.

14:55:40 15 AND YET AT THE BOTTOM WE ALSO THEN SEE
14:55:43 16 THE CONTROL WINDOW. AND THIS IS ALSO REFERRED TO
14:55:45 17 AS THE FIRST WINDOW REGION IN THE CLAIMS. AND HERE
14:55:49 18 WE SEE AGAIN THE ABILITY TO CHECK THE STATUS OF THE
14:55:52 19 BATTERY OR THE BRIGHTNESS IN THIS INSTANCE. WE
14:55:56 20 ALSO SEE THE ABILITY TO LAUNCH DIFFERENT PROGRAMS
14:55:58 21 AS WELL.

14:56:02 22 SO ONE OF THE ISSUES WITH RESPECT TO THE
14:56:04 23 '002 PATENT IS JUST THE ITEMS THAT TYPICALLY APPEAR
14:56:08 24 IN A CONTROL WINDOW VERSUS ITEMS THAT APPEAR TO --
14:56:11 25 IN AN APPLICATION WINDOW.

14:56:13 1 A CONTROL WINDOW INCLUDES MODULES THAT
14:56:17 2 TYPICALLY PROVIDE THE STATUS AND CONTROL FUNCTIONS
14:56:19 3 SUCH AS NETWORK CONNECTION SUCH AS IS MY WI-FI
14:56:24 4 CONNECTED AND THE BATTERY MONITOR, LCD BRIGHTNESS,
14:56:28 5 POWER SETTING INDICATORS, AS WELL AS THE ABILITY TO
14:56:30 6 CONTROL THE VOLUME.

14:56:31 7 ITEMS THAT APPEAR IN AN APPLICATIONS
14:56:33 8 WINDOW ARE USUALLY APPLICATION PROGRAMS OR THEY'RE
14:56:37 9 ICONS THAT THEN LINK TO CONTROL PROGRAMS, LIKE THE
14:56:40 10 ABILITY TO LAUNCH INTERNET EXPLORER, FOR EXAMPLE.

14:56:43 11 SO THAT IS THE '002 PATENT, YOUR HONOR.

14:56:49 12 THE '891 PATENT IS A PATENT THAT IS FILED
14:56:53 13 IN 2008 AND ISSUED IN 2010.

14:56:55 14 AND THIS PATENT IS A METHOD FOR
14:56:59 15 DISPLAYING A STATUS WINDOW, FOR EXAMPLE, A VOLUME
14:57:05 16 OR BRIGHTNESS THAT AUTOMATICALLY CLOSES AFTER A
14:57:07 17 CERTAIN AMOUNT OF TIME EXPIRES.

14:57:11 18 AND THE STATUS WINDOW DOES NOT CLOSE IN
14:57:14 19 RESPONSE TO A USER WINDOW BUT JUST AUTOMATICALLY
14:57:18 20 EXPIRES AFTER A CERTAIN AMOUNT OF TIME.

14:57:20 21 FIGURE 16 FROM THE PATENT, AND I'M
14:57:22 22 LOOKING AT SLIDE 13 HERE, AND SHOWS THE EMBODIMENT
14:57:26 23 AND THIS IS A QUOTE, "IN MORE THAN ONE EMBODIMENT
14:57:29 24 OF THE INVENTION, A WINDOW IS CLOSED AUTOMATICALLY
14:57:31 25 AFTER A TIMER EXPIRES OR WHEN A CONDITION OR

14:57:34 1 CRITERION IS MET OR SYSTEM INPUT IS RECEIVED
14:57:38 2 WITHOUT USER INPUT."

14:57:40 3 AND IN THIS FIGURE WE SEE THE STATUS
14:57:42 4 WINDOW IS THE VOLUME CONTROL, AND WE SAW THAT IN
14:57:44 5 MR. BALAKRISHNAN'S TUTORIAL AS WELL.

14:57:47 6 AGAIN, THE STATE OF THE ART. IN 2001
14:57:55 7 SEVERAL YEARS BEFORE THE '891 PATENT --

14:57:58 8 THE COURT: YOU KNOW, I DON'T WANT A LOT
14:58:00 9 OF THIS PRIOR ART INVALIDITY STUFF. THAT'S NOT
14:58:05 10 WHAT I WANT IN THE TUTORIAL SO.

14:58:07 11 MR. JOHNSON: OKAY. I CAN SKIP AHEAD.

14:58:09 12 THE COURT: OKAY.

14:58:10 13 MR. JOHNSON: YOU KNOW, WHAT ONE OF THE
14:58:12 14 ISSUES WITH RESPECT TO THE '891 PATENT IS THE
14:58:15 15 DISTINCTION BETWEEN A CURSOR AND A CARET.

14:58:17 16 A CURSOR, AS WE ALL ARE AWARE, IS
14:58:22 17 BASICALLY A FREE FLOATING POINTER AND THAT
14:58:24 18 DETERMINES A POSITION ON A DISPLAY.

14:58:26 19 A CARET ON THE OTHER HAND IS AN INDICATOR
14:58:29 20 OF A POSITION WITHIN A DOCUMENT. IT'S WHAT TELLS
14:58:33 21 YOU AM I BETWEEN THE LETTERS P AND A, FOR EXAMPLE,
14:58:37 22 OR BETWEEN A AND N HERE? I CAN KEEP TRACK OF HOW
14:58:40 23 TO EDIT PARTICULAR DOCUMENTS.

14:58:42 24 SO A CURSOR IS USED TO MOVE OR ALTER THE
14:58:46 25 SIZE OF A WINDOW AND SITS USUALLY ON TOP OF WINDOWS

14:58:50 1 AND USUALLY WE SEE THE CURSOR DOWN BELOW CHANGING
14:58:52 2 THE SIZE OF THIS PARTICULAR BOX.

14:58:56 3 AND YET THE CARET, WHICH APPEARS AFTER
14:58:58 4 THE LETTER BEING -- AFTER THE WORD "BROWN" HERE
14:59:02 5 MAINTAINS ITS RELATIVE POSITION WITHIN THE DOCUMENT
14:59:04 6 AND RESIDES WITHIN THAT DOCUMENT.

14:59:06 7 SO JUST TO RUN THAT AGAIN, WE SEE A
14:59:11 8 CURSOR ON THE LEFT. IT COULD BE USED TO EXPAND
14:59:16 9 BOXES, EXPAND WINDOWS. AND EACH TIME THE CURSOR
14:59:20 10 MOVES OVER ON TOP OF THE WINDOW BUT YET THE CARET
14:59:24 11 REMAINS IN THE SAME RELATIVE POSITION WITHIN THE
14:59:27 12 WINDOW.

14:59:30 13 SO, AGAIN, SOME OF THE DISTINCTIONS AND
14:59:32 14 THE FUNCTIONS BETWEEN THE CURSOR AND A CARET ARE
14:59:36 15 THE CURSOR HAS THE ABILITY TO MOVE BETWEEN WINDOWS
14:59:40 16 WHEREAS A CARET DOESN'T. IT STAYS WITHIN THE
14:59:43 17 SINGLE WINDOW THAT IT'S WORKING ON.

14:59:44 18 THE CURSOR CAN MOVE FREELY ON THE SCREEN,
14:59:48 19 ALL OVER THE SCREEN, AND THE CARET CANNOT.

14:59:50 20 THE CURSOR CAN BE USED TO CLICK ON
14:59:53 21 DIFFERENT TYPES OF ICONS AND THE CARET CANNOT.

14:59:56 22 AND A CURSOR DOES NOT, HOWEVER, HAVE THE
15:00:01 23 ABILITY TO IDENTIFY A POSITION WITHIN A DOCUMENT.
15:00:03 24 THAT'S WHAT A CARET DOES.

15:00:09 25 THE COURT: WHY IS THAT? WHY IS THAT?

15:00:13 1 CAN YOU PLEASE GO TO THAT?

15:00:16 2 MR. JOHNSON: JUST TO GO BACK. SO GOING
15:00:18 3 BACK TO THE EXAMPLE OF THE QUICK BROWN FOX.

15:00:24 4 THE CARET IS WHAT IDENTIFIES THE POSITION
15:00:28 5 WITHIN THE PARTICULAR DOCUMENT AFTER THE WORD
15:00:29 6 "BROWN." A CURSOR DOES NOT REALLY TELL YOU WHERE
15:00:31 7 YOU'RE EDITING WITHIN A DOCUMENT. IT CAN BE USED
15:00:33 8 TO PLACE A CARET, FOR EXAMPLE.

15:00:36 9 THE COURT: YEAH.

15:00:37 10 MR. JOHNSON: RIGHT. BUT IT HAS MUCH
15:00:39 11 WIDER ABILITIES TO MOVE OUTSIDE OF THE WINDOWS,
15:00:42 12 OUTSIDE OF THE DOCUMENTS. AND SO IT DOESN'T
15:00:45 13 IDENTIFY THE ACTUAL POSITION WITHIN -- SORRY --
15:00:52 14 WITHIN THE DOCUMENT.

15:00:53 15 I CAN HAVE MY CURSOR IN THE UPPER
15:00:56 16 LEFT-HAND CORNER OF A WINDOW AND THE CARET IS STILL
15:00:58 17 ON THE WORD "BROWN" AND WHEN I START EDITING, MY
15:01:02 18 EDITS GO IN WHERE THE CARET IS, NOT WHERE THE
15:01:05 19 CURSOR IS.

15:01:05 20 SO THE CARET TELLS YOU WHERE YOUR EDITS
15:01:08 21 ARE GOING TO GO, IDENTIFIES THE POSITIONS WITHIN
15:01:10 22 THE DOCUMENT, AND THE CURSOR DOES NOT TELL YOU
15:01:13 23 WHERE YOU ARE WITHIN THE DOCUMENT.

15:01:14 24 AND I MAKE THAT MISTAKE ALL OF THE TIME
15:01:18 25 ACTUALLY WHEN I MAKE AN EDIT. WHEN I SEE THE

15:01:19 1 CURSOR, AND I THINK I'M GOING TO START EDITING
15:01:22 2 WHERE THE CURSOR IS, YET I FIND THAT MY EDITS ARE
15:01:25 3 GOING SOMEPLACE ELSE.

15:01:27 4 SO A CURSOR DOES NOT IDENTIFY A POSITION
15:01:30 5 WITHIN THE DOCUMENT. THAT'S WHAT THE CARET DOES.

15:01:36 6 AND WE SEE THAT THERE ARE SOME
15:01:38 7 DISTINCTIONS WITH THE INPUT DEVICES FOR CURSOR
15:01:41 8 VERSUS CARET.

15:01:42 9 THE KEYBOARD HERE, THE TRACK PAD, THE
15:01:46 10 MOUSE, AND THE TRACK BALL CAN ALL BE USED IN ONE
15:01:48 11 WAY OR ANOTHER TO BASICALLY MOVE THE CARET AROUND
15:01:51 12 THE DOCUMENT.

15:01:52 13 WHEREAS WITH RESPECT TO A CURSOR, THE
15:01:56 14 KEYBOARD IS NOT USED TO CONTROL THE LOCATION OF A
15:02:00 15 CURSOR. THE TRACK BALL CAN BE USED -- SORRY -- THE
15:02:04 16 MOUSE CAN BE USED, AND THE TRACK PAD CAN BE USED TO
15:02:07 17 MOVE THE CURSOR AROUND, BUT THE KEYBOARD DOES NOT
15:02:10 18 MOVE THE CURSOR AROUND. SO THAT'S THE '891 PATENT.

15:02:17 19 THE '381 PATENT WAS FILED IN DECEMBER OF
15:02:20 20 2007, ISSUED IN 2008. IT DESCRIBES, YOU KNOW, AND
15:02:29 21 INDICATES TO THE USER WHEN THE EDGE OF AN
15:02:33 22 ELECTRONIC DOCUMENT HAS BEEN REACHED; WHEN A READER
15:02:35 23 GETS TO THE ELECTRONIC DOCUMENT BEYOND THE EDGE, AN
15:02:39 24 AREA BEYOND THE EDGE OF THE ELECTRONIC DOCUMENT IS
15:02:42 25 DISPLAYED; AND THEN WHEN THE USER REMOVES HIS OR

15:02:45 1 HER FINGER FROM THE DISPLAY, THE DOCUMENT SNAPS
15:02:47 2 BACK TO LINE UP TO THE EDGE OF THE SCREEN.

15:02:49 3 THE SPECIFICATION PROVIDES EXAMPLES OF
15:02:53 4 ELECTRONIC DOCUMENTS. AND THIS IS FROM COLUMN 27,
15:02:57 5 LINE 7 TO 13 WE SEE EXAMPLES HERE OF A WORD
15:03:03 6 PROCESSING DOCUMENT AND A SPREADSHEET AND IN YELLOW
15:03:06 7 WE SEE THE AREAS BEYOND THE EDGE. THE ELECTRONIC
15:03:10 8 DOCUMENT HAS THE GREEN HASH MARKS AROUND IT.

15:03:15 9 FURTHER EXAMPLES OF ELECTRONIC DOCUMENTS
15:03:17 10 INCLUDE A WEB PAGE, AGAIN WITH THE GREEN HASH MARKS
15:03:21 11 AND THE AREAS BEYOND THE EDGE IS MARKED IN YELLOW
15:03:24 12 HERE.

15:03:25 13 YOU CAN ALSO HAVE A DIGITAL IMAGE, A
15:03:25 14 PHOTOGRAPH OF THE GORILLA WHICH HAS YELLOW AREAS
15:03:32 15 BEHOND THE EDGE OF THE DOCUMENT AS WELL.

15:03:33 16 AND WEB PAGES CAN HAVE DIGITAL IMAGES
15:03:36 17 IMBEDDED WITHIN THEMSELVES, AND IF YOU THINK OF THE
15:03:39 18 "NEW YORK TIMES" ARTICLE THAT WE SAW IN THE
15:03:41 19 TUTORIAL THAT APPLE DID, LIKE THIS "TIME" ARTICLE,
15:03:45 20 THERE ARE SEVERAL ELECTRONIC DOCUMENTS ON THIS
15:03:48 21 PAGE.

15:03:48 22 YOU CAN HAVE THE ELECTRONIC DOCUMENT BE
15:03:50 23 THE ENTIRE WEB PAGE, YOU CAN ALSO HAVE THE
15:03:54 24 ELECTRONIC DOCUMENT BE, FOR EXAMPLE, THE IMAGE OF
15:03:57 25 WHAT APPEARS HERE WITH THE GREEN HASH MARKS.

15:04:00 1 AND THEY'RE GROUPINGS, FOR EXAMPLE. THIS
15:04:04 2 CAN BE AN ELECTRONIC DOCUMENT OVER ON THE LEFT-HAND
15:04:07 3 SIDE AND THE EDITORS PICKED SEGMENTS.

15:04:10 4 AND SO ONE OF THE ISSUES THAT WE'LL TALK
15:04:12 5 ABOUT ON FRIDAY IS OBVIOUSLY WHAT DOES AN AREA
15:04:15 6 BEYOND THE EDGE MEAN.

15:04:19 7 WITH THAT, YOUR HONOR, I'LL TURN IT OVER
15:04:21 8 TO MR. VERHOEVEN TO DISCUSS THE '915 PATENT.

15:04:26 9 THE COURT: LET ME ASK EITHER SIDE. I
15:04:27 10 HAD SOME QUESTIONS THAT GO TO CLAIM CONSTRUCTION.
15:04:32 11 WOULD YOU LIKE TO GET INTO THAT DISCUSSION TODAY OR
15:04:35 12 JUST SAVE IT FOR FRIDAY? WHAT IS YOUR PREFERENCE?

15:04:37 13 MR. JOHNSON: WELL, IF YOUR HONOR HAS ANY
15:04:39 14 QUESTIONS ABOUT IT, I THINK WE WOULD BE WILLING TO
15:04:41 15 HEAR WHAT THE QUESTIONS ARE AND AS OPPOSED TO
15:04:44 16 ARGUING THEM AND ARGUING THE MERITS OF THEM. IT
15:04:48 17 MAY INFORM OUR PRESENTATION FOR PURPOSES OF FRIDAY.

15:04:50 18 THE COURT: OKAY. ALL RIGHT. IT JUST
15:04:52 19 WOULD -- SOME OF THE ANSWERS WOULD HELP ME IN
15:04:54 20 PREPARING FOR FRIDAY, AND THAT'S THE ONLY REASON I
15:04:58 21 WANTED TO SEE IF YOU WANTED TO TALK ABOUT THEM
15:05:01 22 TODAY.

15:05:01 23 BUT IF YOU WANT TO WAIT UNTIL FRIDAY,
15:05:05 24 THAT'S FINE. I WILL LET YOU KNOW WHAT MY QUESTIONS
15:05:08 25 ARE.

15:05:08 1 WHY DON'T WE GO THROUGH THE TUTORIAL
15:05:12 2 PRESENTATION, AND THEN I'LL LET YOU KNOW WHAT MY
15:05:14 3 QUESTIONS ARE.

15:05:14 4 MR. JOHNSON: OKAY. THANK YOU, YOUR
15:05:15 5 HONOR.

15:05:16 6 MR. VERHOEVEN: GOOD AFTERNOON, YOUR
15:05:17 7 HONOR. SOME OF WHAT I'M GOING TO DO IS GOING TO BE
15:05:22 8 REPETITIVE TO WHAT DR. BALAKRISHNAN PRESENTED, AND
15:05:26 9 SO I'LL MOVE RELATIVELY QUICKLY.

15:05:29 10 STARTING WITH THE '915 PATENT, YOUR
15:05:31 11 HONOR, THIS PATENT CONCERNS SCROLLING AND GESTURE
15:05:34 12 OPERATIONS AND THE -- WHAT IS GOING TO BE AT ISSUE
15:05:37 13 ON FRIDAY WILL BE THE MEANING OF ONE OF THE
15:05:41 14 SCROLLING PHASES.

15:05:42 15 SO FOR TODAY ALL I WANT TO TALK ABOUT IS
15:05:45 16 THE PATENT DISTINGUISHES BETWEEN SPECIFIC SCROLL
15:05:48 17 OPERATIONS AND GESTURE OPERATIONS.

15:05:51 18 SO THE PATENT USES THE WORD "SCROLL"
15:05:55 19 DIFFERENTLY THAN "GESTURE" IN THE SPECIFICATION.

15:05:57 20 THE TERM FOR FRIDAY IS "SCROLLING A
15:05:59 21 WINDOW HAVING A VIEW."

15:06:04 22 GOING INTO THIS, ON THE LEFT HERE IS AN
15:06:08 23 EXAMPLE OF SCROLL OPERATIONS AS DESCRIBED IN THE
15:06:10 24 PATENT; AND ON THE RIGHT IS GESTURE OPERATIONS.
15:06:15 25 AND I'LL JUST PLAY THIS AND THEN LET YOU READ THE

15:06:18 1
15:06:19 2
15:06:22 3
15:06:27 4
15:06:31 5
15:06:35 6
15:06:40 7
15:06:42 8
15:06:45 9
15:06:47 10
15:06:49 11
15:06:50 12
15:06:53 13
15:06:53 14
15:06:57 15
15:07:02 16
15:07:07 17
15:07:14 18
15:07:19 19
15:07:25 20
15:07:28 21
15:07:31 22
15:07:33 23
15:07:34 24
15:07:39 25

BULLETS .

SO AS DESCRIBED IN THE PATENT, THE SCROLL OPERATIONS ARE OPERATIONS WHERE YOU USE ONE FINGER INSTEAD OF MULTIPLE FINGERS AND A SINGLE TOUCH WHEREAS GESTURE OPERATIONS ARE WHERE YOU'RE USING MULTI TOUCH, YOU'RE USING TWO FINGERS AND/OR YOU CAN USE MORE THAN TWO FINGERS, AND THAT'S THE WAY THAT THE -- SO WHEN THE PATENT IS TALKING ABOUT GESTURE, THAT'S WHAT THE PATENT IS TALKING ABOUT; WHEN THE PATENT IS TALKING ABOUT SCROLL, THAT'S WHAT THE PATENT IS TALKING ABOUT.

I'LL PLAY THIS ONE MORE TIME SO WE CAN WATCH IT AGAIN.

SO ON THE LEFT IT'S ONE FINGER AND THAT'S WHAT THE PATENT IS CALLED IS SCROLLING; AND ON THE RIGHT IT'S CALLED MULTI TOUCH, TWO FINGERS, YOU CAN PINCH AND EXPAND IT AND YOU CAN PINCH IT.

OKAY. WE JUST COVERED THAT, YOUR HONOR. SO ON SLIDE 29 SOME OF THE TERMS IN THE PATENT SCROLLING A VIEW AND SCROLLING A WINDOW HAVING A VIEW I THINK GET A LITTLE CONFUSING. SO I'M JUST GOING TO SHOW WHAT WE THINK THAT MEANS WITH AN ILLUSTRATION.

BUT BEFORE I GET TO THAT, ON GESTURE OPERATIONS, JUST FOR COMPLETENESS, THE THINGS YOU

15:07:41 1 CAN DO WITH THE GESTURE ARE YOU CAN EXPAND, YOU CAN
15:07:44 2 ZOOM. WE JUST SAW THOSE TWO IN THE ILLUSTRATION.

15:07:47 3 AND ANOTHER THING YOU CAN DO IS I DIDN'T
15:07:50 4 ILLUSTRATE IS THAT YOU CAN ROTATE AS YOUR HONOR
15:07:52 5 PROBABLY KNOWS BY MOVING YOUR HANDS THAT WAY AND
15:07:54 6 THAT WOULD BE ANOTHER GESTURE OPERATION THAT YOU
15:07:56 7 CAN DO.

15:07:56 8 AND THE SCROLLING OPERATIONS, THE PATENT
15:07:59 9 TALKS ABOUT SCROLLING A VIEW, SCROLLING A WINDOW
15:08:01 10 HAVING A VIEW. AND LET ME SHOW YOU WHAT WE THINK
15:08:03 11 THAT PATENT IS DESCRIBING HERE.

15:08:05 12 SO A VIEW AS DESCRIBED IN THE
15:08:09 13 SPECIFICATION, YOUR HONOR, IS THAT THE PATENT SAYS
15:08:10 14 THAT IT CAN BE, IT'S BASICALLY THE BACKGROUND OF A
15:08:13 15 WINDOW.

15:08:14 16 SO THE PATENT GIVES THREE, THREE EXAMPLES
15:08:16 17 OF WHAT THAT CAN BE. IT SAYS IT CAN BE AN IMAGE,
15:08:22 18 IT CAN BE A WEB PAGE, IT CAN BE TEXT.

15:08:26 19 SO I'M USING THIS PICTURE AS IMAGE AS AN
15:08:29 20 EXAMPLE OF A VIEW.

15:08:30 21 AND THEN THE PATENT TALKS ABOUT THE VIEW
15:08:32 22 IN RELATION TO A WINDOW. AND SO WE'RE JUST USING A
15:08:37 23 FRAME HERE AS ILLUSTRATIVE.

15:08:40 24 SO A WINDOW HAVING A VIEW WOULD BE THIS
15:08:43 25 FRAME WOULD BE THE WINDOW AND THE IMAGE BEHIND IT

15:08:46 1 WOULD BE THE VIEW.

15:08:47 2 AND THEN SCROLLING A WINDOW HAVING A VIEW
15:08:55 3 AS USED IN THE PATENT, AND I'LL DO THAT ONE MORE
15:08:57 4 TIME, IS YOU'RE MOVING THE WINDOW OVER A STATIC
15:09:04 5 IMAGE. AND THEN SCROLLING THE VIEW, WE'LL PLAY
15:09:12 6 THIS, IS THE WINDOW STAYS THE SAME AND THE
15:09:17 7 BACKGROUND IMAGE IS MOVING.

15:09:18 8 SO THAT'S PRETTY SIMPLE, AND THAT'S ALL I
15:09:21 9 HAVE TO SAY ON THE TUTORIAL FOR THAT.

15:09:23 10 LET'S MOVE ON TO THE '607, WHICH IS A
15:09:26 11 TRANSPARENT HARDWARE TOUCHSCREEN PATENT, YOUR
15:09:29 12 HONOR.

15:09:31 13 DR. BALAKRISHNAN SPENT A LOT OF TIME
15:09:34 14 TALKING ABOUT THE CONCEPT OF MUTUAL CAPACITANCE AND
15:09:39 15 ALL OF THAT, AND I DON'T WANT TO TAKE THE TIME TO
15:09:41 16 REPEAT IT. SO I'LL GO THROUGH IT BRIEFLY.

15:09:44 17 THE PATENT TALKS ABOUT A SPECIFIC TYPE OF
15:09:47 18 TECHNOLOGY FOR MULTIPOINT TOUCHSCREENS AND THE
15:09:54 19 SPECIFIC TYPE USES TWO LAYERS OF PARALLEL
15:09:59 20 TRANSPARENT CONDUCTIVE LINES THAT ARE
15:10:01 21 PERPENDICULAR; AND THIS ARRANGEMENT CREATES AN X-Y
15:10:07 22 GRID OF TRACES, T-R-A-C-E-S, WHERE THE HORIZONTAL
15:10:10 23 LAYER AND THE VERTICAL LAYER ARE SPACIALLY
15:10:14 24 SEPARATED FROM ONE ANOTHER; AND THIS CREATES WHAT
15:10:16 25 IS CALLED MUTUAL CAPACITANCE.

15:10:18 1 AND THE CAPACITIVE MONITORING CIRCUITRY
15:10:22 2 ENABLES THE DETECTION OF MULTIPLE TOUCHES AT THE
15:10:25 3 SAME TIME.

15:10:29 4 TOUCHSCREENS, AS DR. BALAKRISHNAN WENT
15:10:32 5 THROUGH, HAVE BEEN AROUND FOR A LONG TIME. MUTUAL
15:10:34 6 CAPACITANCE WAS AROUND BEFORE THE PATENTS. I'M NOT
15:10:37 7 GOING TO GO INTO THE PRIOR ARGUMENTS. I DON'T
15:10:40 8 THINK THAT'S DISPUTED.

15:10:43 9 SO REALLY BRIEFLY, THIS IS FIGURE 2, YOU
15:10:46 10 CAN DO MULTIPLE TOUCHES AS SHOWING THE CROSS-HATCH
15:10:49 11 OF THE CONDUCTIVE LINES.

15:10:52 12 THIS IS SIMILAR TO WHAT DR. BALAKRISHNAN
15:10:55 13 DISPLAYED, IT'S A STACK FOR HOW A MUTUAL
15:10:59 14 CAPACITANCE TOUCHSCREEN WORKS. AND SO YOU HAVE A
15:11:03 15 DISPLAY AT THE BOTTOM; AND THEN YOU HAVE THREE
15:11:05 16 TRANSPARENT LAYERS, AND THOSE ARE THE BLUE LAYERS
15:11:09 17 THERE; AND THEN YOU'VE GOT ROWS OF CONDUCTIVE LINES
15:11:12 18 AND COLUMNS OF CONDUCTIVE LINES AND THEY'RE
15:11:17 19 CROSS-HATCHED.

15:11:18 20 AND I'M NOT SURE IF DR. BALAKRISHNAN GOT
15:11:21 21 INTO THIS, BUT ONE SET OF THE LINES IS GOING TO BE
15:11:25 22 CALLED DRIVE LINES.

15:11:26 23 AND THE ELECTRONIC CIRCUITRY DRIVES POWER
15:11:29 24 THROUGH THOSE LINES, AND THEN THE SECOND SET OF
15:11:34 25 LINES IS WHAT IS CALLED SENSE LINES. AND THEY HAVE

15:11:39 1 CIRCUITRY COMING OUT AND IT GOES BACK INTO A CHIP
15:11:43 2 AND THAT MEASURES AND SENSES CHANGES IN CAPACITY.

15:11:49 3 SO I DON'T THINK THAT -- CERTAINLY NOT
15:11:52 4 FOR FRIDAY DO WE NEED TO GO INTO ALL OF THAT
15:11:54 5 BECAUSE THE ONLY CLAIM CONSTRUCTION TERM FOR FRIDAY
15:11:56 6 IS WHETHER THESE TRANSPARENT LAYERS HAVE TO BE
15:11:59 7 GLASS OR HAVE TO BE PLASTIC. SO THE ELECTRONIC
15:12:02 8 CIRCUITRY IS NOT GOING TO BE CRITICAL FOR FRIDAY.

15:12:05 9 THIS IS A STACK FROM FIGURE 10 AND YOU
15:12:08 10 HAVE GOT YOUR DRIVE LINES AND YOUR SENSE LINES AND
15:12:11 11 YOU HAVE YOUR THREE TRANSPARENT LAYERS.

15:12:17 12 AND THIS IS -- BY WAY OF BACKGROUND, IF
15:12:21 13 YOU'RE TRYING TO DEVELOP A MUTUAL CAPACITANCE
15:12:25 14 TOUCHSCREEN, YOUR HONOR, YOU CAN HAVE CHOICES FOR
15:12:27 15 YOUR TRANSPARENT LAYERS: YOU CAN USE GLASS, THAT'S
15:12:30 16 ONE CHOICE; YOU CAN USE PLASTIC. A LOT OF PEOPLE
15:12:34 17 LIKE TO USE P-E-T, THAT'S POLYETHYLENE
15:12:39 18 TEREPHTHALATE, WHICH IS THE SAME MATERIAL THAT IS
15:12:41 19 IN THE OLD TWO LITER COKE BOTTLES.

15:12:47 20 ON THE CONDUCTIVE LINES YOU HAVE A WHOLE
15:12:49 21 VARIETY OF CHOICES OF CONDUCTIVE MATERIALS. YOU
15:12:51 22 CAN USE COPPER, SILVER, INDIUM TIN OXIDE.

15:12:56 23 AND THEN IN ADHESIVES, YOU'D PROBABLY USE
15:13:00 24 GLUE OR SOME SORT OF CLEAR ADHESIVE.

15:13:02 25 THIS IS JUST GOING OVER SOME OF THE

15:13:06 1 BENEFITS OF THE DIFFERENT MATERIALS THAT YOU CAN
15:13:08 2 CHOOSE. GLASS HAS CHEMICAL RESISTANCE AND IT'S
15:13:13 3 SCRATCH RESISTANCE AND DIELECTRIC PROPERTIES.

15:13:16 4 PLASTIC IS LIGHTER AND IF YOU DROP YOUR
15:13:20 5 PHONE IT'S NOT GOING TO SHATTER AND IT'S EASIER TO
15:13:23 6 WORK WITH.

15:13:23 7 AND THAT'S ALL I HAVE FOR THAT PATENT
15:13:26 8 UNLESS YOUR HONOR HAS ANY QUESTIONS.

15:13:28 9 MOVE ONTO THE '828 PATENT, WHICH IS THE
15:13:31 10 ELLIPSE FITTING PATENT, YOUR HONOR.

15:13:41 11 THIS PATENT CONCERNS WHEN YOU'RE
15:13:43 12 INPUTTING DATA POINTS, CONTACT POINTS FROM A
15:13:47 13 TOUCH-SENSITIVE SURFACE ARE SEGMENTED INTO
15:13:49 14 DISTINCTIVE TOUCHES; A MATHEMATICAL MODEL OF AN
15:13:53 15 ELLIPSE IS FITTED TO EACH SIGNIFICANT TOUCH; THE
15:13:56 16 PARAMETERS DESCRIBING THIS ELLIPSE ARE LATER USED
15:13:59 17 FOR GESTURE RECOGNITION.

15:14:00 18 AND YOU REMEMBER DR. BALAKRISHNAN'S SLIDE
15:14:02 19 SHOWED THE HAND AND HOW THE LITTLE OVAL LIKE
15:14:06 20 CIRCLES, THAT'S TYPICALLY LIKE WHAT PATTERN GETS
15:14:09 21 FORMED WHEN YOU TOUCH A TOUCHSCREEN, AND THE PATENT
15:14:11 22 IS REFERRING TO THAT TO FITTING THAT TOUCH,
15:14:14 23 FIGURING OUT THE BOUNDARY OF THAT TOUCH AS THE
15:14:18 24 ELLIPSE FITTING.

15:14:19 25 THIS IS JUST TALKING ABOUT, AS

15:14:26 1 DR. BALAKRISHNAN SAID BEFORE, THIS PATENT THERE ARE
15:14:29 2 MANY OTHER PATENTS THAT TALK ABOUT ELLIPSE FITTING.

15:14:31 3 SO LET'S GO INTO '828 AND ELLIPSE
15:14:34 4 FITTING.

15:14:34 5 YOU START WITH AN ELECTRODE SCANNING
15:14:37 6 HARDWARE WE HAVE HERE; AND THEN YOU HAVE THE STEP
15:14:40 7 OF CALIBRATION AND PROXIMITY IMAGE FORMATION.

15:14:44 8 AND THIS GOES INTO THE DESCRIPTION OF HOW
15:14:46 9 YOU CALCULATE THE ELLIPSE PARAMETERS OR WHAT THE
15:14:50 10 SHAPE OF THE ELLIPSE IS AND THE PATENT DESCRIBES
15:14:56 11 THE CALCULATION OF 5 MATHEMATICAL PARAMETERS AND
15:15:00 12 THE X AND Y COORDINATE OF THE CENTROID, WHICH
15:15:06 13 DR. BALAKRISHNAN WENT INTO. AND THAT'S TWO OF THE
15:15:06 14 PARAMETERS.

15:15:09 15 AND THEN THE LENGTH OF THE MAJOR AXIS,
15:15:11 16 AND THAT'S THIS LINE GOING FROM LOWER LEFT TO UPPER
15:15:14 17 RIGHT ON SLIDE 47; THE LENGTH OF THE MINOR AXIS,
15:15:22 18 AND THAT'S GOING FROM UPPER LEFT TO LOWER RIGHT ON
15:15:24 19 THIS SLIDE IN BLUE; AND THEN THE FINAL PARAMETER
15:15:27 20 THE PATENT TALKS ABOUT IS THE ORIENTATION.

15:15:30 21 SO YOU FIGURE OUT WHERE THE CENTER IS;
15:15:33 22 YOU FIGURE OUT WHERE THE MAJOR AXIS OF THE ELLIPSE;
15:15:36 23 YOU FIGURE OUT THE MINOR AXIS OF THE ELLIPSE, AND
15:15:38 24 THEN YOU FIGURE OUT HOW IS THIS THING ORIENTED.

15:15:41 25 AND AT A HIGH LEVEL, THAT'S WHAT THE

15:15:43 1 PATENT TALKS ABOUT.

15:15:47 2 NOW, THERE'S A LOT OF COMPLEX LINEAR
15:15:51 3 ALGEBRA IN HERE, YOUR HONOR, BUT I DON'T THINK
15:15:53 4 THAT'S NECESSARY FOR US TO LEARN LINEAR ALGEBRA FOR
15:15:57 5 US TO LEARN THIS PATENT. AND IF IT IS, THEN I'M
15:16:00 6 NOT GOING TO BE ABLE TO EXPLAIN IT TO YOU.

15:16:02 7 BUT I JUST WANT TO SHOW WHERE SORT OF
15:16:04 8 LINING UP WITH THOSE FIVE STEPS WHERE WE BELIEVE IT
15:16:10 9 FITS IN WITH THE PATENT AND I THINK WE'RE ALL IN
15:16:13 10 AGREEMENT WITH WHAT DR. BALAKRISHNAN SHOWED FOR
15:16:16 11 WHERE THESE STEPS ARE.

15:16:18 12 THESE FIRST NUMBERED 12, 13, AND 14
15:16:23 13 EQUATIONS, AND THIS IS FROM COLUMN 25, LINE 61 TO
15:16:28 14 COLUMN 26:10, YOUR HONOR.

15:16:31 15 THOSE CORRESPOND TO CALCULATING THE X
15:16:34 16 COORDINATE AND THE Y COORDINATE OF THE CENTROID.

15:16:41 17 THEN WE GO TO 15 THROUGH 19. YOU NEED
15:16:45 18 15, 16, 17, AND 18 TO GET TO 19.

15:16:48 19 THIS IS PART OF THE ELLIPSE FITTING
15:16:51 20 PROCEDURE THAT REQUIRES THIS UNITARY TRANSFORMATION
15:16:53 21 OF THE GROUP COVARIANCE MATRIX WHICH IS GOING TO BE
15:16:58 22 AT ISSUE ON FRIDAY.

15:16:59 23 IF YOU LOOK -- SO YOU HAVE TO DO 15
15:17:02 24 THROUGH 18 STEPS BUT THEN WHEN YOU GET TO 19 IT
15:17:05 25 SAYS G MAJOR THERE. THAT CORRESPONDS TO THE

15:17:08 1 CALCULATION, THE FORMULA FOR THE CALCULATION OF THE
15:17:14 2 MAJOR AXIS RIGHT HERE. SO GOING BACK.

15:17:16 3 SO YOU NEED TO DO ALL OF THESE, BUT THEN
15:17:18 4 WHEN YOU GET TO 19 YOU GET YOUR G MAJOR AND THAT
15:17:21 5 CORRESPONDS TO THE MAJOR AXIS.

15:17:23 6 AND THEN THE NEXT STEP 20, G MINOR, THAT
15:17:28 7 CORRESPONDS TO THE CALCULATION OF THE MINOR AXIS.

15:17:31 8 AND THE LAST STEP EQUATION 21 IS WHERE
15:17:37 9 YOU'RE CALCULATING THE ORIENTATION.

15:17:48 10 NOW, I SHOULD PROBABLY MENTION THAT
15:17:50 11 ANOTHER CALCULATION THAT IS DONE IN HERE WHEN
15:17:52 12 YOU'RE DOING THAT I BELIEVE IT'S GOING BACK TO
15:17:58 13 SLIDE 48, I BELIEVE IT'S IN THIS GREEN BOX HERE,
15:18:03 14 YOU'RE ALSO CALCULATING ECCENTRICITY, WHICH IS
15:18:09 15 ANOTHER PARAMETER THAT I DIDN'T PUT UP, THAT'S THE
15:18:14 16 RELATIONSHIP BETWEEN THE MAJOR AND MINOR AXES OF
15:18:19 17 THE ELLIPSE AND IT MEASURES HOW MUCH THE ELLIPSE
15:18:24 18 VARIES FROM A CIRCLE.

15:18:26 19 SO I NEGLECTED TO PUT THAT ON THE SLIDES,
15:18:29 20 BUT THAT'S ALSO DONE IN THE SPECIFICATION HERE.
15:18:33 21 IT'S PART OF WHAT THAT -- WHAT DR. BALAKRISHNAN
15:18:37 22 SAYS THAT THAT EMBODIMENT REQUIRES.

15:18:40 23 WE HAVE A DISPUTE AS TO THE PARAGRAPH,
15:18:43 24 BUT I'M NOT GOING TO SPEND A LOT OF TIME ARGUING
15:18:46 25 IT, YOUR HONOR, THAT DR. BALAKRISHNAN CALLS THE

15:18:48 1 SECOND EMBODIMENT. WE'LL TALK ABOUT THAT ON
15:18:51 2 FRIDAY. WE DON'T BELIEVE THAT'S A PROPER
15:18:53 3 CHARACTERIZATION.

15:18:54 4 I WILL DESCRIBE WHAT IT'S DOING THOUGH,
15:18:56 5 IF I MAY, YOUR HONOR, IN THAT PARAGRAPH FROM A
15:18:59 6 TECHNICAL STANDPOINT.

15:19:00 7 WHAT THAT IS DOING IS -- LET'S LOOK AT
15:19:06 8 THIS FIRST. IT'S TALKING ABOUT "ON LOW RESOLUTION
15:19:10 9 ELECTRODE ARRAYS, THE TOTAL GROUP PROXIMITY GZ IS A
15:19:16 10 MORE RELIABLE INDICATOR OF THE CONTACT SIZE AS WELL
15:19:18 11 AS FINGER PRESSURE THAN THE FITTED ELLIPSE
15:19:20 12 PARAMETERS. THEREFORE, IF PROXIMITY IMAGES HAVE
15:19:24 13 LOW RESOLUTION, THE ORIENTATION AND ECCENTRICITY OF
15:19:29 14 SMALL CONTACTS ARE SET TO DEFAULT VALUES RATHER
15:19:31 15 THAN THEIR MEASURED VALUES."

15:19:35 16 SO WE INTERPRET THAT AS SAYING, I DON'T
15:19:37 17 WANT TO GET INTO TOO MUCH ARGUMENT, IF IT'S LOW
15:19:40 18 RESOLUTION AND YOU CAN'T FIGURE IT OUT, THEN WE'RE
15:19:42 19 NOT GOING TO DO THESE CALCULATIONS AND WE'RE JUST
15:19:45 20 GOING TO GO TO DEFAULT.

15:19:50 21 FOR EXAMPLE, THERE'S TWO -- WELL, I DON'T
15:19:52 22 KNOW IF YOU HAVE -- I CAN'T ELECTRONICALLY DISPLAY
15:19:55 23 DR. BALAKRISHNAN'S SLIDE, BUT HIS SLIDE T94, WHICH
15:19:59 24 WAS THIS ONE, YOUR HONOR.

15:20:01 25 THE COURT: I DON'T THINK WE HAVE A COPY

15:20:03 1 OF THE APPLE PRESENTATION.

15:20:14 2 MR. MCELHINNY: SORRY, YOUR HONOR, THAT
15:20:16 3 IS MY ERROR.

15:20:16 4 THE CLERK: AND, COUNSEL, IF BOTH SIDES
15:20:19 5 HAVE A COPY FOR THE COURT REPORTER AS WELL.

15:20:23 6 MR. VERHOEVEN: ABSOLUTELY.

15:20:48 7 THE COURT: WHAT WAS THE PAGE NUMBER?

15:20:50 8 MR. VERHOEVEN: T94.

15:20:51 9 THE COURT: OKAY.

15:20:52 10 MR. VERHOEVEN: I BELIEVE, IF I DIDN'T
15:20:54 11 MISHEAR HIM, I THOUGHT I HEARD DR. BALAKRISHNAN SAY
15:20:55 12 THAT THIS CALCULATION NUMBER 12 IS THE ONLY THING
15:20:58 13 THAT WAS DONE WITH I THINK I SHOWED THE SAME TEXT
15:21:01 14 HERE.

15:21:02 15 SO THAT MEANS THAT YOU'RE NOT DOING ANY
15:21:04 16 OF THE STEPS, YOU'RE NOT CALCULATING THE X
15:21:06 17 COORDINATE OR THE Y COORDINATE WHICH ARE THE
15:21:09 18 OTHER -- WHICH ARE 13 AND 14 BELOW THAT OR ANY OF
15:21:12 19 THE OTHER STEPS. AND WE CAN GET INTO ARGUMENT ON
15:21:16 20 FRIDAY BUT JUST AS A TECHNICAL MATTER, I THINK
15:21:18 21 WE'RE IN AGREEMENT THERE.

15:21:20 22 AND I REFER TO THE ORIENTATION AND
15:21:23 23 ECCENTRICITY, THOSE ARE SET TO ZERO.

15:21:27 24 SO WE'RE NOT DETERMINING, WE'RE NOT
15:21:33 25 TRYING TO MEASURE HOW MUCH IT VARIES FROM THE

15:21:36 1 CIRCLE AND WE'RE NOT TRYING TO FIND OUT THE
15:21:39 2 ORIENTATION OF THAT ELLIPSE.

15:21:40 3 UNLESS YOUR HONOR HAS ANY FURTHER
15:21:43 4 QUESTIONS, THAT CONCLUDES OUR DISCUSSION OF THE
15:21:45 5 APPLE.

15:21:45 6 THE COURT: AND YOU SAID FOR THE
15:21:47 7 ORIENTATION THAT'S THE RELATIONSHIP BETWEEN THE
15:21:49 8 MAJOR AND THE MINOR AXIS AND YOU'RE SAYING THAT THE
15:21:53 9 ECCENTRICITY IS HOW THIS CIRCLE DIFFERS FROM AN
15:21:56 10 ELLIPSE? IS THAT WHAT YOU'RE TALKING ABOUT?

15:21:58 11 MR. VERHOEVEN: YES. SO IF WE GO BACK TO
15:22:00 12 THE PICTURE, THE ORIENTATION IS THE POSITIONING.

15:22:05 13 THE COURT: OH, OKAY.

15:22:06 14 MR. VERHOEVEN: AND THEN YOU USE THE X,
15:22:08 15 YOU USE THE CALCULATION OF THE MAJOR AXIS TO THE
15:22:11 16 MINOR AXIS TO GET YOUR ECCENTRICITY.

15:22:15 17 THE COURT: OKAY.

15:22:17 18 MR. VERHOEVEN: SO THAT'S WHY WE DIDN'T
15:22:20 19 REALLY PUT IT IN THERE IN OUR SLIDES BECAUSE IT'S
15:22:22 20 KIND OF INHERENT IN WHAT WE'RE SHOWING BY
15:22:24 21 CALCULATING THE MAJOR AXIS TO THE MINOR AXIS,
15:22:27 22 YOU'RE GETTING THIS NOTION OF ECCENTRICITY AND
15:22:33 23 ECCENTRICITY IS, AS I UNDERSTAND IT, YOUR HONOR,
15:22:34 24 MEASURES THE RELATIONSHIP BETWEEN THOSE TWO
15:22:37 25 PARAMETERS AND HOW MUCH THE ELLIPSE VARIES FROM THE

15:22:40 1
15:22:40 2
15:22:44 3
15:22:47 4
15:22:50 5
15:22:51 6
15:22:54 7
15:22:56 8
15:22:59 9
15:23:05 10
15:23:06 11
15:23:08 12
15:23:11 13
15:23:15 14
15:23:19 15
15:23:21 16
15:23:25 17
15:23:28 18
15:23:30 19
15:23:31 20
15:23:32 21
15:23:36 22
15:23:37 23
15:23:41 24
15:23:44 25

CIRCLE.

SO WHEN YOU GO TO, WHEN YOU GO TO THIS
DISCUSSION OF THIS SINGLE PARAGRAPH --

THE COURT: UH-HUH.

MR. VERHOEVEN: -- YOU'RE SAYING YOU
DON'T CALCULATE THE X COORDINATE CENTRIC, YOU DON'T
CALCULATE THE Y COORDINATE CENTRIC, YOU DON'T
CALCULATE THE MAJOR AXIS AND THE MINOR AXIS AND YOU
DON'T CALCULATE THE ORIENTATION AND ORIENTATION
ECCENTRICITY ARE SET TO ZERO.

FROM A TECHNICAL PERSPECTIVE THAT IS WHY
WE UNDERSTAND THAT'S WHAT IT'S SAYING AND IT SOUNDS
LIKE DR. BALAKRISHNAN'S SLIDE T94 THAT HE AGREES.

SO THAT CONCLUDES OUR PRESENTATION AND AS
I UNDERSTAND IT THE PARTIES AGREE THAT THE NEXT
STEP IS FOR US TO KEEP GOING AND TO PRESENT A
TUTORIAL ON THE SAMSUNG PATENTS.

THE COURT: ON THE ONE PATENT, THE '711,
RIGHT?

MR. VERHOEVEN: WE HAD HOPED TO MAKE SOME
PRESENTATION ON -- IT WASN'T CLEAR TO US EXACTLY
HOW MANY THINGS WOULD BE COVERED. WE HAD HOPED TO
MAKE A PRESENTATION, A BRIEF OVERVIEW OF ALL OF THE
TECHNOLOGY, YOUR HONOR, IF THAT'S ACCEPTABLE.

I NOTE THAT APPLE DID THAT IN THEIR

15:23:46 1 PRESENTATION, THEY PRESENTED ON ALL OF THEIR
15:23:48 2 PATENTS, NOT JUST THE ONES FROM MARKMAN, BUT
15:23:50 3 OBVIOUSLY, YOUR HONOR, YOU'LL TELL US WHAT YOU WANT
15:23:53 4 TO DO.

15:23:54 5 MR. MCELHINNY: BEFORE YOU GET THERE,
15:24:00 6 YOUR HONOR, I HAVE A DIFFERENT POINT AND I DON'T
15:24:01 7 KNOW HOW YOU WANT TO DEAL WITH THIS.

15:24:03 8 THE COURT: UH-HUH.

15:24:04 9 MR. MCELHINNY: I DON'T KNOW IF IT'S A
15:24:06 10 DEBATE ABOUT EXPERTS BUT IN MR. VERHOEVEN'S
15:24:09 11 PRESENTATION HE POINTED TO THE CALCULATIONS AT
15:24:14 12 LINES 12, 13, AND 14 AND TOLD THE COURT THAT THOSE
15:24:17 13 WERE USED TO CALCULATE ECCENTRICITY.

15:24:21 14 WE HAVE -- DR. BALAKRISHNAN WAS HERE AND
15:24:24 15 IMMEDIATELY WROTE ME A NOTE AND SAID THAT'S SIMPLY
15:24:27 16 NOT TRUE.

15:24:27 17 AND UNLIKE MR. VERHOEVEN, I THINK IN
15:24:32 18 ORDER TO UNDERSTAND THIS PATENT YOU DO HAVE TO
15:24:34 19 UNDERSTAND THE EQUATIONS TO UNDERSTAND WHAT IS
15:24:36 20 GOING ON HERE, AND I JUST DON'T KNOW HOW YOUR HONOR
15:24:38 21 WANTS TO HANDLE THAT.

15:24:39 22 THE COURT: WELL, WHAT PORTION OF WHAT
15:24:40 23 MR. VERHOEVEN SAID DOES DR. BALAKRISHNAN DISAGREE
15:24:49 24 WITH? JUST THAT ONE POINT?

15:24:50 25 MR. MCELHINNY: THE TWO THINGS, THE NOTES

15:24:52 1 THAT I GOT. I MEAN, WE CAN ASK HIM. BUT THE TWO
15:24:55 2 THINGS ARE, ONE, THAT THE STATEMENT 12, 13, AND 14
15:24:57 3 ARE USED TO CALCULATE ECCENTRICITY; AND THE SECOND
15:25:01 4 ONE WAS WHEN MR. VERHOEVEN PURPORTED TO QUOTE
15:25:05 5 DR. BALAKRISHNAN THAT ONLY NUMBER 12 WAS USED IN
15:25:07 6 THE SECOND EMBODIMENT. DR. BALAKRISHNAN DIDN'T SAY
15:25:10 7 THAT AND DISAGREES WITH THAT.

15:25:13 8 THE COURT: WELL, I WAS GOING TO ASK HIM
15:25:14 9 IF HE AGREED WITH WHAT WAS STATED. SO WHY DOESN'T
15:25:19 10 HE JUST.

15:25:20 11 MR. BALAKRISHNAN: SHOULD I GO UP TO THE
15:25:22 12 MICROPHONE?

15:25:23 13 MR. MCELHINNY: PLEASE. AND SPEAK SLOWLY
15:25:25 14 SO THE COURT REPORTER UNDERSTANDS THE TERMS.

15:25:27 15 MR. BALAKRISHNAN: YES, YOUR HONOR.

15:25:30 16 THE COURT: SO DO YOU AGREE WITH WHAT
15:25:33 17 MR. VERHOEVEN STATED AS TO -- I MEAN, EVERYTHING IS
15:25:38 18 BOILING DOWN TO COLUMN 27 AND WHETHER LINES 1
15:25:43 19 THROUGH 8 OF THE SECOND EMBODIMENT OR NOT?

15:25:47 20 YOU ALREADY SAID THAT THERE'S NO UNITARY
15:25:50 21 TRANSFORMATION OF A COVARIANCE MATRIX IN COLUMN 27.
15:25:56 22 BUT WHAT MR. VERHOEVEN STATED, DO YOU AGREE OR
15:25:59 23 DISAGREE WITH WHAT IS OCCURRING IN EQUATIONS 12
15:26:01 24 THROUGH 14 IN COLUMN 26?

15:26:05 25 MR. BALAKRISHNAN: I'M JUST GETTING THOSE

15:26:06 1 EQUATIONS IN FRONT OF ME SO I'M REFERRING TO THE
15:26:10 2 EXACT SAME THINGS. ONE SECOND.

15:26:17 3 SO EQUATION 12, YOUR HONOR, CALCULATES
15:26:21 4 THE SIZE OF THE TOUCH AND EQUATIONS 13 AND 14
15:26:25 5 CALCULATES THE CENTER, THE POSITION OF THE CENTER
15:26:28 6 OF THE TOUCH AND POSITION 13 CALCULATES THE X
15:26:32 7 POSITION, AND EQUATION 14 CALCULATES THE Y
15:26:36 8 POSITION.

15:26:36 9 I BELIEVE I HEARD DR. OR MR. VERHOEVEN
15:26:39 10 SAY THAT THOSE THREE EQUATIONS DETERMINE THE
15:26:43 11 ECCENTRICITY AND THAT IS NOT TRUE IF WHAT I HEARD
15:26:46 12 IS CORRECT.

15:26:47 13 THE COURT: IT DOES MAKE SENSE THAT THAT
15:26:50 14 WOULD BE USED TO CALCULATE ORIENTATION, THOUGH,
15:26:52 15 WOULD YOU AGREE?

15:26:53 16 MR. BALAKRISHNAN: NO, ORIENTATION IS
15:26:55 17 CALCULATED LATER.

15:26:55 18 THE COURT: WHY NOT?

15:26:57 19 MR. BALAKRISHNAN: EXPLICITLY IN EQUATION
15:26:59 20 21, YOUR HONOR, WHERE IT SAYS G THETA IS CALCULATED
15:27:03 21 USING THAT GROUP COVARIANCE MATRIX EARLIER ON AND
15:27:08 22 MAJOR AND MINOR AXES WERE CALCULATED IN EQUATIONS
15:27:14 23 19 AND 20.

15:27:15 24 NOW, YOU CAN CALCULATE THE ECCENTRICITY
15:27:21 25 AS EQUATION 22 INDICATES, WHICH I DID NOT TALK

15:27:23 1 ABOUT IN MY PRESENTATION, BUT IT'S RIGHT THERE IN
15:27:27 2 THE BOTTOM OF COLUMN 26, EQUATION NUMBER 22 CLEARLY
15:27:30 3 SAYS THAT ECCENTRICITY IS CALCULATED AS THE RATIO
15:27:35 4 OF THE MAJOR AND MINOR AXES VALUES THAT WERE
15:27:39 5 PREVIOUSLY CALCULATED IN EQUATIONS 19 AND 20.

15:27:42 6 SO IF I RECALL MR. VERHOEVEN'S STATEMENT
15:27:48 7 THAT THE ECCENTRICITY WAS BASED ON EQUATIONS 12,
15:27:52 8 13, AND 14, IF INDEED THAT WAS TRUE, WHAT HE SAID
15:27:57 9 MY CONTENTION IS THAT THAT IS NOT TRUE AND THE
15:27:59 10 PATENT EXPLICITLY GIVES THE EQUATION FOR THE
15:28:02 11 ECCENTRICITY CALCULATION IN EQUATION 22.

15:28:06 12 THE COURT: WHAT IS THE DIFFERENCE
15:28:07 13 BETWEEN CALCULATING THE X VALUE AND THE Y VALUE AND
15:28:11 14 THEN COMPUTING THE WHOLE AXIS, WHETHER MINOR OR
15:28:13 15 MAJOR?

15:28:14 16 MR. BALAKRISHNAN: THE X AND Y VALUE,
15:28:16 17 YOUR HONOR, IS SIMPLY THE CENTER POSITION OF THE
15:28:19 18 ELLIPSE.

15:28:20 19 CAN I GET SLIDE --

15:28:36 20 THIS IS A GOOD SLIDE. YOUR HONOR, IF I
15:28:38 21 MAY, THE CENTER POINT HERE, THE GREEN POINT IS THE
15:28:40 22 CENTER OF AN ELLIPSE AND THAT HAS AN X VALUE AND A
15:28:44 23 Y VALUE CORRESPONDING TO THE X AXIS, WHICH IS THE
15:28:47 24 HORIZONTAL AXIS OF THE CARTESIAN SYSTEM AND THE Y
15:28:54 25 AXIS, WHICH IS THE VERTICAL. AND SO THE CENTROID

15:28:57 1 SAYS WHAT IS THE LOCATION OF THE X AND Y LOCATION
15:29:02 2 OF THE CENTER ELLIPSE.

15:29:05 3 THE MAJOR AXIS REFERS TO THE LENGTH OF
15:29:08 4 THE LONGEST AXIS ATTENDED IN THE ELLIPSE AND THAT'S
15:29:13 5 SHOWN HERE IN ORANGE, YOUR HONOR. AND THAT HAS A
15:29:20 6 LENGTH VALUE ASSOCIATED WITH IT. SIMILAR FOR THE
15:29:23 7 MINOR AXIS, WHICH IS PERPENDICULAR TO THE MAJOR
15:29:25 8 AXIS.

15:29:26 9 AND THE PATENT VERY CLEARLY WITH THE
15:29:28 10 EQUATIONS 19 AND 20 SHOW HOW TO CALCULATE THE MAJOR
15:29:35 11 AND MINOR AXIS USING THE COVARIANCE MATRIX
15:29:41 12 CALCULATIONS IN THE EARLIER EQUATIONS IN THE FIRST
15:29:45 13 EMBODIMENT.

15:29:51 14 THE COURT: LET ME ASK MR. VERHOEVEN, IT
15:29:53 15 DOES SAY ECCENTRICITY IN 22.

15:29:57 16 MR. VERHOEVEN: I DON'T DISAGREE. AND I
15:29:59 17 APOLOGIZE IF I WAS NOT AS TECHNICALLY AS STUDIOUS
15:30:01 18 AS DR. BALAKRISHNAN.

15:30:03 19 I BELIEVE YOU USE THOSE DETERMINED VALUES
15:30:05 20 IN 13 AND 14 LATER AS PART OF DETERMINING THE G
15:30:10 21 MAJOR AND THE G MINOR AND THEN YOU DO THE
15:30:12 22 ECCENTRICITY ON 22. I DON'T DISAGREE WITH THAT,
15:30:16 23 YOUR HONOR.

15:30:16 24 THE COURT: OKAY. WHAT ABOUT
15:30:18 25 ORIENTATION? HE'S -- DR. BALAKRISHNAN IS SAYING

15:30:20 1 THAT ORIENTATION IS IN 21 AND NOT IN EQUATIONS

15:30:26 2 12 --

15:30:28 3 MR. VERHOEVEN: THAT'S ALL I'M TRYING TO

15:30:28 4 SAY IS THAT YOU NEED TO DO THOSE -- I'M SORRY.

15:30:34 5 THAT'S WHAT I THOUGHT I SAID. IF I WASN'T CLEAR,

15:30:35 6 THAT'S WHAT I MEAN TO SAY, IS THAT YOU NEED TO DO

15:30:37 7 THOSE IN ORDER TO GET TO THAT POINT AND JUST LIKE

15:30:40 8 WITH THE CALCULATION OF -- SO I WOULD JUST LIKE TO

15:31:04 9 GET TO THE POINT WHERE YOU DO THE FINAL

15:31:06 10 CALCULATIONS TO GET THE LENGTH OF THE MAJOR AXIS,

15:31:10 11 THAT'S WHERE YOU DO THAT CALCULATION 19.

15:31:12 12 MY ONLY POINT WAS THAT YOU NEED TO DO 15,

15:31:15 13 16, 17, AND 18 TO GET TO 19 AND I'M TRYING TO HELP

15:31:19 14 MYSELF UNDERSTAND, AND HOPEFULLY YOUR HONOR

15:31:21 15 UNDERSTANDS, THAT WHEN THIS SAYS ELLIPSE FITTING

15:31:25 16 PROCEDURE REQUIRES A UNITARY TRANSFORMATION OF THE

15:31:28 17 GROUP COVARIANCE MATRIX, WHAT IS THAT REFERRING TO?

15:31:31 18 IT'S REFERRING TO THIS STUFF HERE. AND

15:31:33 19 THEN YOU GET DOWN HERE TO THIS STEP AND THAT'S

15:31:35 20 WHERE YOU CALCULATE -- I'M TRYING TO TAKE THE

15:31:37 21 EQUATIONS AND PLUG THEM IN SO YOU CAN SEE HOW THEY

15:31:40 22 PLUG INTO THESE PICTURES.

15:31:42 23 THE COURT: OKAY.

15:31:45 24 MR. VERHOEVEN: AND THE LENGTH OF THE

15:31:46 25 MAJOR AXIS PLUGS INTO THE EQUATION ON 19.

15:32:01 1 AND THE LENGTH WILL BE MINOR AXIS IS
15:32:05 2 EQUATION 20 AS I UNDERSTAND IT. SO THAT CORRELATES
15:32:08 3 TO OUR SIMILAR SLIDE RIGHT HERE.

15:32:12 4 AND THEN THE CALCULATION OF THE
15:32:14 5 ORIENTATION. AND WE'RE IN AGREEMENT THAT THE
15:32:22 6 CALCULATION OF THE ORIENTATION THE FINAL
15:32:25 7 CALCULATION THAT YOU DO TO GET THERE IS 21.

15:32:37 8 I THINK WE'RE IN AGREEMENT ON THAT.

15:32:39 9 THE COURT: OKAY. WHY DON'T WE TAKE A
15:32:41 10 BREAK.

15:32:41 11 MR. MCELHINNY: THE OTHER ISSUE, AND THE
15:32:43 12 OTHER ISSUE WAS THE STATEMENT THAT ONLY THE
15:32:44 13 CALCULATION IN NUMBER 12 WAS USED IN THE SECOND
15:32:49 14 EMBODIMENT. THAT'S THE OTHER POINT THAT DR. --

15:32:52 15 THE COURT: WELL, I THOUGHT THAT'S WHAT
15:32:54 16 HE SAID THAT DR. BALAKRISHNAN SAID AS WELL.

15:32:58 17 MR. MCELHINNY: ACTUALLY THAT'S WHAT
15:33:00 18 MR. VERHOEVEN SAID THAT DR. BALAKRISHNAN SAID AS
15:33:02 19 WELL, BUT I DON'T THINK WE AGREE WITH THAT.

15:33:04 20 THE COURT: OKAY. SO I THOUGHT IT WAS
15:33:06 21 DEFAULT VALUES AND THEN GZ AND GZ IS EQUATION 12.

15:33:10 22 MR. BALAKRISHNAN: JUST TO CLARIFY WHAT I
15:33:11 23 BELIEVE I SAID WAS THAT THE SECOND EMBODIMENT
15:33:14 24 CALCULATES G SUB Z, WHICH IS EQUATION 12, AND WHICH
15:33:18 25 IS THE SIZE WHICH CAN THEN BE USED TO DETERMINE THE

15:33:21 1 VALUES OF MAJOR AND MINOR AXES AND THEY WOULD BE
15:33:24 2 EQUIVALENT IN THAT CASE AND IT ALSO OBVIOUSLY HAS
15:33:30 3 TO CALCULATE THE CENTROID, WHICH IS THE X AND Y
15:33:33 4 POSITION WHICH IS THE CENTROID OF THE ELLIPSE WHICH
15:33:35 5 IS EQUATIONS 13 AND 14. AND I BELIEVE I COVERED
15:33:37 6 THAT WHEN I TALKED ABOUT THE SECOND EMBODIMENT IN
15:33:43 7 MY PRESENTATION, YOUR HONOR.

15:33:44 8 THE COURT: SO YOU'RE SAYING THAT --
15:33:48 9 WHICH -- BECAUSE I HAD THE SAME UNDERSTANDING AS
15:33:51 10 MR. VERHOEVEN THAT IT WAS ONLY GZ THAT WAS BEING
15:33:55 11 CALCULATED AND EVERYTHING ELSE WAS SET TO DEFAULT.

15:33:57 12 SO TELL ME AGAIN WHICH EQUATIONS DO YOU
15:34:00 13 BELIEVE THAT ARE BEING USED IN COLUMN 27?

15:34:04 14 MR. BALAKRISHNAN: IN COLUMN 27, G SUB Z
15:34:07 15 IS DEFINITELY USED IN EQUATION 12 AND EQUATIONS 13
15:34:10 16 AND 14 HAVE TO BE USED AS WELL BECAUSE THAT
15:34:13 17 DETERMINES THE CENTER POSITION OF THE ELLIPSE.

15:34:17 18 IF YOU DO NOT HAVE THE POSITION OF THE
15:34:19 19 ELLIPSE AND JUST THE SIZE, YOU WILL HAVE NO IDEA
15:34:23 20 WHERE THAT FINGER IS TOUCHING ON THE ENTIRE TOUCH
15:34:26 21 PAD.

15:34:26 22 SO AT A BARE MINIMUM, WE NEED TO KNOW THE
15:34:29 23 X AND Y POSITION OF THE CENTROID OF THE ELLIPSE.

15:34:32 24 AND SO IT'S EQUATIONS 12, 13, AND 14 THAT
15:34:38 25 WOULD HAVE TO BE CALCULATED, OR SOME VARIANT

15:34:40 1 THEREOF, YOU WOULD HAVE TO BE ABLE TO DETERMINE THE
15:34:44 2 CENTER OF THE ELLIPSE IN ORDER TO HAVE THIS DEFAULT
15:34:49 3 VALUE FOR THE OTHER PARAMETERS SUCH AS MAJOR AND
15:34:52 4 MINOR AXIS AND ECCENTRICITY AND ORIENTATION.

15:34:57 5 THE COURT: OKAY. BUT YOU AGREE THAT
15:34:59 6 EQUATIONS 15 THROUGH 22 ARE NOT NECESSARY IN COLUMN
15:35:02 7 27?

15:35:03 8 MR. BALAKRISHNAN: THAT IS CORRECT, YOUR
15:35:07 9 HONOR.

15:35:07 10 THE COURT: OKAY. ALL RIGHT. LET ME ASK
15:35:09 11 MR. VERHOEVEN IF YOU WANTED TO ADDRESS THAT OR NOT.

15:35:12 12 MR. VERHOEVEN: I THOUGHT THAT THAT'S
15:35:13 13 WHAT HE SAID, YOUR HONOR, SO I'M NOT GOING TO GO UP
15:35:16 14 AGAINST A SCIENTIST ON THIS.

15:35:17 15 I DON'T THINK IT REALLY MATTERS FOR OUR
15:35:19 16 CLAIM CONSTRUCTION ARGUMENTS.

15:35:23 17 THE POINTS THAT WE'RE IN AGREEMENT ON IS
15:35:25 18 THE POINT THAT WOULD BE RELEVANT FOR FRIDAY, WHICH
15:35:27 19 IS THE ONLY -- EVEN ASSUMING THAT IT CALCULATES AS
15:35:32 20 CENTER POINT, SO IF YOU GO BACK TO -- AND I HAD
15:35:42 21 SAID THAT YOU DON'T DO X COORDINATE OR Y COORDINATE
15:35:45 22 BECAUSE HE SAID THAT AND IF THAT -- BECAUSE IF HE
15:35:48 23 DISAGREES WITH ME, I DON'T THINK IT'S THAT
15:35:50 24 IMPORTANT. THAT'S JUST THE DOT.

15:35:55 25 GENTLEMEN, YOU AGREE THAT'S JUST THE DOT?

15:35:58 1 SO WE'RE IN AGREEMENT THAT MEANS THAT YOU CALCULATE
15:36:00 2 THAT DOT.

15:36:01 3 SO I DON'T THINK THAT FOR FRIDAY THAT
15:36:05 4 IT'S GOING TO BE THAT IMPORTANT BECAUSE ALL OF OUR
15:36:07 5 ARGUMENTS ARE BASED ON THE FACT THAT YOU DON'T
15:36:10 6 CALCULATE THE MAJOR AXIS, THE MINOR AXIS, THE
15:36:14 7 ORIENTATION OR THE ECCENTRICITY, JUST THE DOT.

15:36:18 8 SO I DON'T THINK WE NEED TO TAKE MORE
15:36:20 9 TIME ON THAT.

15:36:21 10 THE COURT: OKAY. I'D LIKE TO TAKE A
15:36:23 11 BREAK. LET ME ASK MS. RODRIGUEZ.

15:36:34 12 HOW LONG IS YOUR PRESENTATION?

15:36:36 13 MR. VERHOEVEN: WE HAVE PROBABLY ABOUT
15:36:40 14 20, 25 MINUTES, YOUR HONOR.

15:36:42 15 WE HAVE BROUGHT AN EXPERT WHO HAS
15:36:44 16 TRAVELLED ALL OF THE WAY HERE TO TALK ABOUT OUR
15:36:46 17 PATENTS AND SOME OF WHICH ARE NOT AT ISSUE.

15:36:49 18 IF WE COULD HAVE A FEW MINUTES TO TALK
15:36:51 19 ABOUT THAT, THAT WOULD FALL WITHIN THAT TIMEFRAME,
15:36:54 20 YOUR HONOR, WE MIGHT VERY MUCH APPRECIATE IT.

15:36:56 21 THE COURT: OKAY. LET ME HEAR FROM
15:36:59 22 MR. MCELHINNY. HOW MUCH TIME DO YOU NEED ON THE
15:37:02 23 '711?

15:37:03 24 MR. MCELHINNY: TEN MINUTES, YOUR HONOR.

15:37:04 25 THE COURT: OKAY. THAT'S FINE.

15:37:06 1 LET'S TAKE A QUICK FIVE-MINUTE BREAK.

15:37:23 2 (WHEREUPON, A RECESS WAS TAKEN.)

15:47:18 3 THE COURT: HAVE YOU ALL AGREED ON WHAT A
15:47:20 4 PERSON OF ORDINARY SKILL IN THE ART FOR THE PATENTS
15:47:23 5 THAT ARE THE SUBJECT OF THIS CLAIM CONSTRUCTION
15:47:27 6 SHOULD BE OR NOT? NO? OKAY.

15:47:30 7 MR. MCELHINNY: I THINK WE AGREED THAT WE
15:47:32 8 NEED TIME TO TALK ABOUT IT IF WE CAN COME TO
15:47:34 9 AGREEMENT.

15:47:34 10 THE COURT: ALL RIGHT. WHEN ARE YOU
15:47:36 11 GOING TO FILE THAT? I WANT THAT FILED BEFORE THE
15:47:38 12 CLAIM CONSTRUCTION HEARING. WHEN IS THAT GOING TO
15:47:41 13 HAPPEN?

15:47:41 14 MR. MCELHINNY: I THINK THAT WOULD MAKE
15:47:43 15 IT -- WILL THURSDAY WORK FOR YOU?

15:47:45 16 THE COURT: I GUESS SO. YOU DON'T THINK
15:47:51 17 THAT SOONER THAN THAT IS FEASIBLE?

15:47:53 18 MR. MCELHINNY: LITERALLY -- IT'S
15:47:54 19 INTERESTING, BUT WE HAVEN'T HAD TO MAKE A
15:47:56 20 DISCLOSURE SO WE DON'T KNOW HOW CLOSE OR FAR --

15:47:59 21 THE COURT: THAT'S FINE. IF YOU CAN DO
15:48:01 22 IT BY THURSDAY, PLEASE. SINCE WE'RE STARTING
15:48:03 23 FRIDAY AT 10:00, CAN YOU DO IT AT LEAST BY NOON OR
15:48:07 24 1:00 O'CLOCK SO I HAVE A LITTLE TIME TO WORK WITH
15:48:10 25 IT?

15:48:10 1 MR. MCELHINNY: YES, YOUR HONOR.

15:48:11 2 THE COURT: SO LET'S SAY NOON.

15:48:13 3 MR. MCELHINNY: WOW, I STARTED WITH NOON
15:48:15 4 OR 1:00 O'CLOCK AND I ENDED UP WITH NOON.

15:48:18 5 THE COURT: WELL, WE'LL STARTING FRIDAY
15:48:23 6 AT 10:00.

15:48:24 7 MR. MCELHINNY: NOON WILL WORK, YOUR
15:48:25 8 HONOR.

15:48:25 9 THE COURT: SO THAT'S THE 19TH.

15:48:27 10 THE CLERK: YES.

15:48:28 11 THE COURT: SO JANUARY 19TH OF 2012.

15:48:31 12 OKAY. AND THEN I'M ONLY INTERESTED IN
15:48:35 13 THE PATENTS THAT ARE -- I'M INTERESTED IN TRYING TO
15:48:41 14 PREPARE THE CLAIM CONSTRUCTION ORDER.

15:48:43 15 SO LET ME ASK ANOTHER QUESTION, CAN YOU
15:48:48 16 ALL -- IT SEEMS LIKE -- WELL, LET ME ASK, WITH
15:48:53 17 REGARD TO PIXEL, PIXEL GROUP, IS THERE ANY
15:48:57 18 AGREEMENT BETWEEN THE PARTIES THAT GROUP CAN JUST
15:48:59 19 BE THE PLAIN AND ORDINARY MEANING, EVEN IF I DO
15:49:03 20 CONSTRUE PIXEL?

15:49:04 21 MR. MCELHINNEY: THAT IS OUR
15:49:05 22 UNDERSTANDING. IT'S A COLLECTION OF PIXELS, OR
15:49:09 23 HOWEVER YOUR HONOR INTERPRETS THAT.

15:49:12 24 THE COURT: OKAY. LET ME HEAR FROM
15:49:15 25 SAMSUNG.

15:49:16 1 MR. VERHOEVEN: ONE SECOND, YOUR HONOR.

15:49:17 2 THE COURT: OKAY.

15:49:18 3 (PAUSE IN PROCEEDINGS.)

15:49:37 4 THE COURT: AND ON PERSON OF ORDINARY
15:49:38 5 SKILL IN THE ART, IF YOU COULD PLEASE, IF YOU
15:49:40 6 DISAGREE, THEN JUST PUT YOUR COMPETING, YOU KNOW,
15:49:45 7 ACADEMIC AND INDUSTRY EXPERIENCE OPINIONS.

15:49:49 8 MR. MCELHINNY: A PRESENTATION THAT GIVES
15:49:51 9 YOU THE TITLE OF THE PATENT EITHER AN AGREED PERSON
15:49:54 10 OF ORDINARY SKILL IN THE ART OR THE TWO SIDE BY
15:49:56 11 SIDE.

15:49:57 12 THE COURT: SURE. AND MAYBE JUST A BRIEF
15:49:58 13 SENTENCE OR TWO AS TO IF THERE'S A DISAGREEMENT, AS
15:50:01 14 TO WHY YOURS IS THE CORRECT ONE.

15:50:03 15 MR. MCELHINNY: GOT IT.

15:50:04 16 MR. VERHOEVEN: AND CAN I CONSULT WITH
15:50:06 17 COUNSEL TO SEE IF I CAN ANSWER AS TO WHETHER WE'RE
15:50:10 18 IN AGREEMENT ON GROUP?

15:50:11 19 THE COURT: YES, PLEASE.

15:50:12 20 (PAUSE IN PROCEEDINGS.)

15:50:23 21 MR. VERHOEVEN: THE REASON I'M ASKING IS
15:50:24 22 THAT IT SAYS PLAIN AND ORDINARY MEANING, AND I WANT
15:50:26 23 TO MAKE SURE WE HAVE THE SAME UNDERSTANDING AS TO
15:50:28 24 WHAT THE PLAIN AND ORDINARY MEANING IS.

15:50:30 25 THE COURT: OKAY.

15:50:31 1
15:50:58 2
15:51:00 3
15:51:02 4
15:51:06 5
15:51:09 6
15:51:11 7
15:51:14 8
15:51:17 9
15:51:18 10
15:51:21 11
15:51:23 12
15:51:25 13
15:51:27 14
15:51:29 15
15:51:32 16
15:51:38 17
15:51:44 18
15:51:46 19
15:51:48 20
15:51:52 21
15:51:56 22
15:51:57 23
15:52:00 24
15:52:03 25

(PAUSE IN PROCEEDINGS.)

MR. VERHOEVEN: TO THE EXTENT THAT WE ALL UNDERSTAND THAT A GROUP, WE'RE TALKING ABOUT ONE OR MORE, IF THAT'S THEIR UNDERSTANDING OF THE PLAIN MEANING OF GROUP, THEN WE HAVE AN AGREEMENT.

MR. MCELHINNY: THAT'S WHAT WE AGREED.

MR. VERHOEVEN: WE HAVE A DISAGREEMENT AS TO PIXEL. SO THAT IS MODIFIED OBVIOUSLY.

THE COURT: SO BOTH SIDES THEN WOULD STIPULATE THAT GROUP IS ONE OR MORE? OR WHAT?

MR. MCELHINNY: I'M SORRY. IT'S HARD SEEING ONE BEING A GROUP. WHAT I'M TRYING TO STIPULATE TO IS THAT A GROUP IS MORE THAN ONE. IT'S A COLLECTION.

THE COURT: OKAY. CAN WE DO THIS THEN? ARE THERE ANY OF THESE TERMS? I APPRECIATE THAT YOU'VE BASICALLY STIPULATED TO THE FIRST TERM.

ARE THERE ANY OTHERS THAT YOU THINK THAT YOU MIGHT BE ABLE TO COME TO AGREEMENT ON?

I WAS THINKING THAT PIXEL, PIXEL GROUP MIGHT BE A FERTILE ONE BUT LET ME KNOW.

MR. VERHOEVEN: WE CAN ATTEMPT TO NEGOTIATE OVER THE COURSE OF THE NEXT DAY AND HALF AND TRY TO MAKE PROGRESS AND SUBMIT THAT TOGETHER WITH OUR RESULTS OF OUR NEGOTIATION OF THE PERSON

15:52:05 1 OF ORDINARY SKILL IN THE ART.

15:52:06 2 THE COURT: I APPRECIATE THAT. AND I
15:52:08 3 FORGOT TODAY IS TUESDAY, AND I WAS ASSUMING THIS IS
15:52:10 4 MONDAY. SO THIS IS A MORE CONSTRAINED TIMEFRAME.

15:52:15 5 COULD YOU SEE IF YOU CAN REACH AN
15:52:18 6 AGREEMENT ON PIXEL, PIXEL GROUP?

15:52:22 7 MR. VERHOEVEN: WE WILL ATTEMPT TO, YOUR
15:52:23 8 HONOR.

15:52:23 9 THE COURT: OKAY. THANK YOU. ARE THERE
15:52:29 10 ANY OTHERS?

15:52:29 11 MR. MCELHINNY: I WASN'T AWARE THAT WE
15:52:31 12 ACTUALLY REACHED AN AGREEMENT ON ANY OF THE ONES
15:52:34 13 THAT ARE REMAINING IN FRONT OF YOU.

15:52:35 14 THE COURT: WELL, ON THE '792 SYMBOL, YOU
15:52:38 15 BASICALLY STATE IN YOUR OPPOSITION THAT YOU ARE
15:52:41 16 FINE WITH SAMSUNG'S ALTERNATIVE CONSTRUCTIONS, AND
15:52:45 17 I DIDN'T PAY ATTENTION TO SYMBOL AT ALL '792.

15:52:49 18 MR. MCELHINNY: I'M SORRY. I'M GETTING
15:52:50 19 LOST BETWEEN MY CASE AND WILMER'S CASE. I BELIEVE
15:52:54 20 YOUR HONOR IS CORRECT.

15:52:55 21 THE COURT: YES. SO I'M GOING TO ASK,
15:52:59 22 AND SINCE I DIDN'T -- I FORGOT IT WAS TUESDAY AND
15:53:02 23 NOT MONDAY, IF YOU COULD, I WOULD APPRECIATE IF YOU
15:53:05 24 COULD TRY TO MEET AND CONFER AND SEE IF THERE'S ANY
15:53:09 25 EITHER NARROWING OR AGREEMENT THAT YOU COULD REACH

15:53:13 1 ON ANY OF THE TERMS BEFORE FRIDAY. OKAY.

15:53:18 2 MR. VERHOEVEN: WE ABSOLUTELY WILL DO
15:53:19 3 THAT, YOUR HONOR.

15:53:20 4 THE COURT: AND DO YOU NEED MORE TIME
15:53:21 5 THAN NOON ON THURSDAY TO DO THAT AND THE PERSON OF
15:53:24 6 ORDINARY SKILL IN THE ART OR NOT?

15:53:26 7 MR. MCELHINNY: I DON'T THINK WE DO.

15:53:27 8 THE COURT: OKAY. DO YOU AGREE WITH
15:53:29 9 THAT?

15:53:29 10 MR. VERHOEVEN: WELL, WE'LL TRY. WE'LL
15:53:31 11 TRY TO DO IT BY THEN AND WE'LL GIVE YOU A REPORT OF
15:53:33 12 OUR PROGRESS BY THEN, YOUR HONOR, TOGETHER WITH OUR
15:53:36 13 RESULTS ON THE PERSON OF ORDINARY SKILL IN THE ART
15:53:38 14 SO THAT YOU HAVE THAT IN TIME TO USE IT IN SOME
15:53:42 15 WAY.

15:53:42 16 THE COURT: OKAY. WELL, WHY DON'T -- YOU
15:53:45 17 KNOW WHAT, I'LL JUST MOVE THIS TO 2:00 P.M. ON
15:53:49 18 THURSDAY SINCE THIS IS THE END OF THE DAY ON
15:53:52 19 TUESDAY AND SO YOU REALLY ONLY HAVE TOMORROW AND
15:53:54 20 HALF OF THURSDAY.

15:53:55 21 IF YOU ARE MAKING GOOD PROGRESS AND YOU
15:53:57 22 NEED MORE TIME, JUST LET ME KNOW.

15:53:59 23 OKAY. SO MEET AND CONFER ON ANY OF THE
15:54:02 24 OTHERS AS WELL.

15:54:03 25 MR. VERHOEVEN: YES, YOUR HONOR.

15:54:04 1 THE COURT: AND SO LET'S GO TO THE '711.

15:54:20 2 MR. VERHOEVEN: YOUR HONOR, WHAT I WAS
15:54:21 3 HOPING, I THOUGHT YOUR HONOR SAID IT WAS OKAY WAS
15:54:23 4 THAT WE COULD MAKE A SHORT PRESENTATION --

15:54:25 5 THE COURT: VERY SHORT.

15:54:26 6 MR. VERHOEVEN: -- TEN MINUTES ON THE
15:54:27 7 STANDARDS PATENTS SINCE OUR EXPERT CAME OUT HERE.

15:54:29 8 THE COURT: THAT'S FINE.

15:54:30 9 MR. VERHOEVEN: AND THEN A PRESENTATION
15:54:32 10 ON THE FEATURE PATENT BY ANOTHER EXPERT WE HAVE
15:54:36 11 HERE AS WELL MR. TIPTON COLE.

15:54:39 12 THE COURT: OKAY.

15:54:41 13 MR. VERHOEVEN: SO REALLY QUICKLY IF I
15:54:42 14 CAN INTRODUCE OUR FIRST EXPERT DR. RICHARD WESEL.
15:54:46 15 HE'S A PROFESSOR OF ELECTRICAL ENGINEERING AT UCLA
15:54:50 16 AND SINCE 2007 HE'S BEEN THE ASSOCIATE DEAN OF
15:54:54 17 ACADEMIC AND STUDENT AFFAIRS IN THE ENGINEERING AND
15:54:57 18 APPLIED SCIENCE SCHOOL; PH.D. IN ELECTRICAL
15:55:01 19 ENGINEERING FROM STANFORD; AND BACHELORS AND
15:55:03 20 MASTERS DEGREES IN ELECTRICAL ENGINEERING FROM
15:55:06 21 M.I.T. AND OTHER ASSOCIATE INFORMATION THAT BECAUSE
15:55:09 22 OF TIME I'LL SKIP OVER.

15:55:11 23 AND WITH THAT IF DR. WESEL COULD COME UP
15:55:15 24 AND MAKE A SHORT PRESENTATION.

15:55:18 25 MR. WESEL: GOOD AFTERNOON, YOUR HONOR.

15:55:19 1 SO TODAY I'LL BE TALKING ABOUT SEVEN PATENTS THAT
15:55:24 2 HELP MAKE THE CELL PHONE SYSTEM THAT WE HAVE TODAY
15:55:27 3 WORK SO WELL.

15:55:28 4 SO AN EARLY CELL PHONE WAS JUST A PHONE.
15:55:31 5 BUT TODAY A CELL PHONE IS A PHONE, A WEB BROWSER, A
15:55:36 6 MUSIC PLAYER, A DEVICE THAT YOU SEND E-MAIL WITH,
15:55:39 7 YOU CAN USE IT FOR NAVIGATION, TO PLAY A MOVIE.
15:55:42 8 THE PERSON IN OUR SLIDE IS TOO RESPECTFUL OF THE
15:55:45 9 COURT BUT THEY'RE ALSO USED FOR PLAYING GAMES.

15:55:47 10 AND WITH TODAY'S PHONES YOU CAN EVEN BE
15:55:50 11 DOING ALL OF THESE THINGS AT ONCE, YOU CAN BE DOING
15:55:53 12 SEVERAL THINGS AT ONCE. YOU CAN SEND AN E-MAIL AT
15:55:56 13 THE SAME TIME YOU'RE TALKING ON THE PHONE AND MAY
15:55:58 14 BE BE RECEIVING A TEXT AT THE SAME TIME.

15:56:00 15 OKAY. SO WITH ALL OF THAT STUFF GOING
15:56:02 16 ON, YOU NEED TO HAVE A CELL PHONE NETWORK THAT CAN
15:56:06 17 HANDLE MANY DEVICES DOING MANY DIFFERENT THINGS
15:56:09 18 SIMULTANEOUSLY.

15:56:10 19 SO -- AND WITH PHONES THAT ARE MADE BY
15:56:14 20 MANY DIFFERENT MANUFACTURERS.

15:56:16 21 SO TO MAKE THIS ALL PLAY TOGETHER, THE --
15:56:21 22 BECAUSE EVEN THOUGH THE DIFFERENT COMPANIES WANT TO
15:56:23 23 COMPETE WITH EACH OTHER BY HAVING THE BEST PHONES,
15:56:25 24 IT'S IN THE INTEREST OF ALL OF THE COMPANIES THAT
15:56:28 25 THE PHONES ACTUALLY WORK WELL TOGETHER SO THE

15:56:30 1 COMPANIES, BECAUSE OF THAT COMMON GOAL, GET
15:56:32 2 TOGETHER AND FORM STANDARDS SO THAT, FOR EXAMPLE,
15:56:37 3 THE PHONE KNOWS EXACTLY HOW IT'S SUPPOSED TO
15:56:39 4 COMMUNICATE TO THE BASE STATION AND THE SYSTEM
15:56:41 5 DOESN'T FAIL BECAUSE THERE'S NOT A COMMON LANGUAGE.
15:56:44 6 WE DON'T WANT THE CELL TOWER TO BE A TOWER OF
15:56:47 7 BABBLE. IT HAS TO BE SOMETHING THAT EVERYBODY IS
15:56:49 8 TALKING TO THE SAME WAY.

15:56:50 9 SO WE HAVE THIS SYSTEM. THERE'S A LOT OF
15:56:52 10 STUFF GOING ON. THERE'S DIFFERENT COMMUNICATIONS.
15:56:54 11 THERE'S ALSO THE ISSUE OF DIFFERENT LEVELS OF
15:56:57 12 CHANNEL QUALITY, HOW MANY BARS DO YOU HAVE.

15:56:59 13 SO WHEN YOU'RE CLOSE TO THE TOWER AND YOU
15:57:02 14 HAVE A CLEAR LINE OF SIGHT, THEN REALLY THINGS ARE
15:57:05 15 KIND OF EASY.

15:57:06 16 BUT WHAT IS INTERESTING FOR AN ENGINEER
15:57:08 17 IS THAT CASE WHEN YOU'RE FAR AWAY FROM THE TOWER,
15:57:10 18 MAYBE BEHIND THE BUILDING TRYING TO DOWNLOAD AN
15:57:13 19 IMPORTANT FILE AND YOU NEED TO GET THIS THING TO
15:57:15 20 WORK.

15:57:16 21 AND THAT'S WHAT THE SEVEN PATENTS THAT
15:57:18 22 I'M GOING TO TALK ABOUT TODAY ARE ADDRESSING,
15:57:21 23 THEY'RE TRYING TO GET THIS COMPLICATED SYSTEM TO
15:57:23 24 WORK AS EFFICIENTLY AND RELIABLY AS POSSIBLE AND
15:57:27 25 HELP SOLVE THOSE TOUGH CASES.

15:57:29 1 SO ONE OF THE IMPORTANT TOOLS THAT A CELL
15:57:32 2 PHONE USES ALL OF THE TIME BUT IT BECOMES REALLY
15:57:36 3 IMPORTANT ON THOSE TOUGH CHANNELS IS CHANNEL
15:57:38 4 CODING.

15:57:38 5 SO CHANNEL CODING IS THIS IDEA WHERE YOU
15:57:41 6 TAKE YOUR DATA AND YOU MIGHT HAVE A THOUSAND BITS
15:57:44 7 OF DATA AND YOU TURN OUT A THOUSAND BITS INTO
15:57:47 8 3,000 BITS.

15:57:48 9 AND THOSE EXTRA 2,000 BITS, WHEN YOU SEND
15:57:51 10 3,000 INSTEAD OF 2,000 OVER THAT TOUGH CHANNEL,
15:57:54 11 THEN AT THE RECEIVER YOU'RE GOING TO BE ABLE TO
15:57:56 12 FIGURE OUT THE THOUSAND THAT YOU'RE REALLY
15:57:58 13 INTERESTED IN FROM THE 3,000.

15:57:59 14 SO THERE'S OVERHEAD, EXTRA BITS THAT MAKE
15:58:03 15 THE TRANSMISSION MORE RELIABLE AND THAT'S WHAT
15:58:05 16 CHANNEL CODING IS.

15:58:07 17 AND ONE OF THE BEST CHANNEL CODING
15:58:09 18 TECHNOLOGIES IS THAT OF TURBO CODES. SO TURBO
15:58:14 19 CODES ARE VERY EFFECTIVE CHANNEL CODES AND THAT
15:58:17 20 LEADS US INTO OUR FIRST PATENT THE '604 PATENT.

15:58:20 21 SO THE '604 PATENT HAS TO DO WITH TURBO
15:58:24 22 CODES, AND I THINK THE PLACE TO START IS WITH
15:58:27 23 FIGURE 1 OF THAT PATENT. LET'S LOOK AT WHAT A
15:58:30 24 TURBO CODE IS. SO THIS IS A TURBO CODE. TURBO
15:58:35 25 CODE TAKES THE DATA, WHAT YOU'RE ACTUALLY TRYING TO

15:58:38 1 CONVEY, THE DK, AND THE FIRST THING IT DOES IS PUTS
15:58:43 2 IT THROUGH THE OUTPUT, THE SK.

15:58:45 3 SO THE SYSTEMATIC BITS, IT'S JUST THE
15:58:47 4 DATA THAT YOU'RE TRYING TO SEND.

15:58:50 5 AND THEN IT TAKES THOSE BITS AND
15:58:53 6 PROCESSES IT WITH THE BLUE BOX, THE FIRST
15:58:55 7 CONSTITUENT ENCODER, AND THAT PRODUCES A SET OF
15:58:59 8 PARITY BITS, THOSE BLUE PARITY BITS.

15:59:02 9 AND THEN IT DOES SOMETHING ELSE WITH
15:59:04 10 THEM. IT PASSES THE DATA THROUGH AN INTERLEAVER
15:59:06 11 AND I'LL TELL YOU A LITTLE BIT LATER WHAT AN
15:59:09 12 INTERLEAVER IS. FOR NOW IT'S JUST A BOX, AND I'LL
15:59:13 13 TELL YOU ABOUT IT LATER.

15:59:14 14 BUT THEN AFTER THAT IS PASSES IT THROUGH
15:59:15 15 THE SECOND CONSTITUENT ENCODER TO THE PRODUCE THE
15:59:19 16 REDPARITY BITS. SO SYSTEMATIC BITS AND PARITY BITS
15:59:24 17 COME UP A LOT IN THESE SEVEN PATENTS SO IT'S
15:59:25 18 IMPORTANT TO UNDERSTAND THAT DISTINCTION.

15:59:27 19 AND THE SYSTEMATIC BITS ARE THE ENCODED
15:59:29 20 BITS BUT THEY'RE JUST THE ORIGINAL DATA WHEREAS THE
15:59:31 21 PARITY BITS ARE NOT EXACTLY THE ORIGINAL DATA, THEY
15:59:35 22 WERE DERIVED FROM THE ORIGINAL DATA TO HELP WHEN
15:59:37 23 THE DECODED PROCESSER HELPER BITS TO HELP THE
15:59:38 24 TRANSMISSION BECOME MORE RELIABLE.

15:59:40 25 OKAY. SO TURBO CODES ARE REALLY GREAT.

15:59:45 1 IT WAS VERY EXCITING, YOU KNOW, IN THE EARLY '90S,
15:59:49 2 '93 AND '94 WHEN THE TURBO CODES WERE FIRST
15:59:49 3 INVENTED. AT THE CONFERENCE WHERE THEY WERE
15:59:49 4 PRESENTED SOME CODING THAT HAD BEEN WORKING THE
15:59:57 5 AREA FOR MANY YEARS THOUGHT THAT GUY IS NOT RIGHT
15:59:58 6 AND IT CAN'T BE WORKING THAT WELL.

16:00:00 7 BUT HE WAS RIGHT. SO THEY'RE A GREAT
16:00:02 8 THING. BUT THIS ACHILLES HAS A HEEL. TURBO CODES
16:00:10 9 WORKED WELL ON LONG -- WHEN YOU PROCESS A LONG DATA
16:00:13 10 FRAME, THE TURBO CODE GIVES YOU A VERY POWERFUL
16:00:14 11 CODE.

16:00:14 12 THE COURT: I'M SORRY TO INTERRUPT YOU.
16:00:16 13 THESE PATENTS ARE NOT FOR THE CLAIM CONSTRUCTION.

16:00:18 14 YOU'RE GOING TO GET ME COMPLETELY
16:00:20 15 CONFUSED. I HAVE NOT READ THESE PATENTS, AND I
16:00:23 16 DIDN'T READ ANY CLAIM CONSTRUCTION BRIEF ON ANY OF
16:00:25 17 THESE PATENTS AND I'M HAVING ENOUGH DIFFICULTY
16:00:28 18 TRYING TO MASTER ALL OF THE PATENTS THAT ARE
16:00:30 19 SUBJECT TO CLAIM CONSTRUCTION.

16:00:31 20 SO IF YOU HAVE SORT OF A MORE OVERVIEW OF
16:00:34 21 THE OTHERS, BUT IF WE GET INTO THE NITTY GRITTY OF
16:00:36 22 THIS ONE, I'LL BE COMPLETELY CONFUSED FOR FRIDAY.

16:00:40 23 MR. VERHOEVEN: YOUR HONOR, I APOLOGIZE
16:00:41 24 ABOUT THIS. WE WEREN'T ENTIRELY CERTAIN WHAT AREAS
16:00:43 25 YOU WANTED TO COVER IN THE TUTORIAL. NOW THAT YOU

16:00:46 1 HAVE MADE THAT CLEAR, WHY DON'T WE STOP THIS
16:00:48 2 PRESENTATION AND MAYBE THERE WILL BE ANOTHER POINT
16:00:50 3 IN THE CASE WHERE IT WILL BE USEFUL TO MAKE A
16:00:52 4 PRESENTATION ABOUT THIS AND GO TO THE LAST PATENT
16:00:55 5 AT ISSUE FOR THE CLAIM CONSTRUCTION.

16:00:56 6 THE COURT: I MEAN, IF YOU HAVE SOME SORT
16:00:58 7 OF OVERVIEW, IF YOU WANTED TO, I'D GIVE YOU A FEW
16:01:01 8 MINUTES SINCE YOU FLEW ALL OF THE WAY OUT HERE,
16:01:03 9 DR. WESEL.

16:01:03 10 MR. VERHOEVEN: I THINK AT THIS POINT, IF
16:01:05 11 IT'S OKAY WITH YOU, I THINK WE SHOULD GET DOWN TO
16:01:08 12 BUSINESS FOR THE TERM -- THE PATENT THAT IS THE
16:01:10 13 LAST PATENT AT ISSUE, YOUR HONOR, IF THAT'S OKAY.

16:01:13 14 THE COURT: OKAY. THAT'S FINE.

16:01:27 15 MR. VERHOEVEN: WE DO HAVE ANOTHER EXPERT
16:01:29 16 FOR THAT, YOUR HONOR, IT'S TIPTON COLE. IF WE CAN
16:01:32 17 GO TO SLIDE 46.

16:01:32 18 THE COURT: OKAY.

16:01:35 19 MR. VERHOEVEN: I'LL VERY BRIEFLY COVER
16:01:35 20 HE HAS A MASTER FROM COMPUTER SCIENCE FROM U.C.
16:01:39 21 AUSTIN, OVER 34 YEARS OF EXPERIENCE, FOUNDER AND
16:01:42 22 THE OWNER OF MULTIPLE SOFTWARE DEVELOPMENT AND
16:01:44 23 CONSULTING BUSINESSES THROUGHOUT HIS CAREER; HE HAS
16:01:46 24 EXTENSIVE EXPERIENCE IN DOCUMENTING AND DELIVERING
16:01:48 25 USER INTERFACE PROJECTS; AND FORMER INSTRUCTOR IN

16:01:52 1 DATA STRUCTURES AND SENIOR LEVEL DATABASE

16:01:55 2 MANAGEMENT SYSTEMS.

16:01:56 3 AND WITH THAT, I'LL LEAVE IT TO MR. COLE

16:02:01 4 AND YOU'RE ONLY GOING TO TALK ABOUT --

16:02:13 5 MR. COLE: GOOD AFTERNOON, YOUR HONOR.

16:02:13 6 THE COURT: GOOD AFTERNOON.

16:02:14 7 MR. COLE: THE SAMSUNG FEATURE PATENTS,
16:02:16 8 THERE WERE FIVE FEATURE PATENTS AND I'M ONLY GOING
16:02:19 9 TO TALK ABOUT THE '711 PATENT TODAY AND THE OTHERS
16:02:22 10 HAVE NO CLAIM TERMS ASSOCIATED WITH THEM, OR I'M
16:02:25 11 SORRY, NO TERMS TO BE CONSTRUED.

16:02:25 12 THE COURT: LET ME ASK A QUESTION.
16:02:28 13 APPLE, HOW COME YOU DID NOT WANT TO CONSTRUE ANY OF
16:02:31 14 THE TERMS FROM THE SAMSUNG PATENTS?

16:02:32 15 MR. COLE: I DON'T KNOW.

16:02:32 16 THE COURT: WELL, I WAS ASKING
16:02:35 17 MR. MCELHINNY OR MAYBE THAT WAS A WILMER HALE
16:02:39 18 QUESTION. I DON'T KNOW.

16:02:42 19 MR. VERHOEVEN: HOLD ON. SHE HAS A
16:02:44 20 QUESTION.

16:02:44 21 THE COURT: HOW COME YOU DID NOT WANT TO
16:02:45 22 CONSTRUE ANY OF THE TERMS OF THE SAMSUNG?

16:02:48 23 MR. BASSETT: ORIGINALLY SOME OF THEM
16:02:49 24 WERE THE CLAIM TERMS THAT WE SUGGESTED MIGHT NEED
16:02:52 25 TO BE CONSTRUED BUT THROUGH THE PROCESS OF

16:02:54 1 NEGOTIATING AND NARROWING DOWN WE WERE ABLE TO
16:02:57 2 EITHER GET COMFORTABLE WITH OUR RESPECTIVE
16:03:00 3 POSITIONS AND WE GOT IT DOWN TO THE ONE CLAIM TERM
16:03:03 4 IN THIS OTHER PATENT AND THAT'S THE ONLY TERM THAT
16:03:06 5 IS IN DISPUTE BETWEEN THE PARTIES REGARDING THE
16:03:10 6 SAMSUNG PATENT.

16:03:11 7 THE COURT: OKAY. GO AHEAD, PLEASE,
16:03:12 8 MR. COLE. I'M SORRY TO INTERRUPT YOU.

16:03:16 9 MR. COLE: SO WE'LL GO TO THE '711
16:03:18 10 PATENT. THIS PATENT HAS TO DO WITH MULTITASKING
16:03:20 11 AND SPECIFICALLY WHILE PLAYING THE MP3 MUSIC FILES.

16:03:26 12 THE SOLUTION WAS PROVIDED BY THE '711
16:03:32 13 PATENT IS TO START THE MUSIC PLAY, GET THE MUSIC
16:03:38 14 GOING. YOU SEE THE INDICATOR THAT THE MUSIC IS
16:03:43 15 PLAYING, AND THEN TO BEGIN ANOTHER, TO BEGIN
16:03:47 16 ANOTHER APPLICATION TASK.

16:03:49 17 SO AGAIN, THE MUSIC CONTINUES TO PLAY
16:03:52 18 WHILE WE START THE NEXT TASK, WHICH IS IN THIS CASE
16:03:56 19 IS AN E-MAIL.

16:04:00 20 SO THE THRUST OF THE PATENT IS THAT WE
16:04:03 21 GET THE MUSIC PLAYING AND THEN WE'RE ABLE TO GO OFF
16:04:06 22 AND DO OTHER TASKS ON THE PHONE. WE CAN DO E-MAIL,
16:04:11 23 WE CAN SORT THROUGH PHOTO FILES, WE CAN DO TEXT
16:04:17 24 MESSAGING, ET CETERA, ALL OF THE THINGS THAT YOU
16:04:19 25 MIGHT WANT TO DO ON YOUR PHONE.

16:04:21 1 THE TERM IN DISPUTE, AS I UNDERSTAND, IS
16:04:26 2 THE TERM "APPLET" WHICH APPEARS IN THE PATENT AS
16:04:31 3 PART OF THE PHRASE "AN APPLICATION MODULE INCLUDING
16:04:34 4 AT LEAST ONE APPLETT." I BELIEVE THAT OCCURS IN THE
16:04:36 5 SPECIFICATION ONCE AND IN A COUPLE OF CLAIMS.

16:04:38 6 TO APPROACH THAT WE TALK FIRST ABOUT WHAT
16:04:44 7 AN APPLICATION MODULE IS. WHAT WE'RE TALKING ABOUT
16:04:47 8 IS AN APPLICATION ON A DESKTOP COMPUTER. IT WOULD
16:04:51 9 BE A WORD PROCESSOR OR SPREADSHEET DOCUMENT VIEWER
16:04:54 10 LIKE THE ADOBE.

16:04:56 11 ON A CELL PHONE IT WOULD BE AN
16:05:00 12 APPLICATION LIKE THE PHOTO BROWSER OR THE
16:05:07 13 NOTE-TAKER OR THE MUSIC PLAYER.

16:05:09 14 THESE ARE EACH APPLICATION MODULES ON THE
16:05:15 15 PHONE PLATFORM.

16:05:15 16 WHAT AN APPLETT IS, APPLETT IS COMMONLY
16:05:19 17 CHARACTERIZED AS A SMALL PROGRAM DESIGNED FOR A
16:05:23 18 SPECIFIC TASK.

16:05:25 19 AND THE EXAMPLES THAT, AGAIN, ARE MOST
16:05:30 20 COMMON WOULD BE THINGS ON YOUR DESKTOP LIKE A QUICK
16:05:33 21 CALCULATOR THAT YOU CAN POP UP, OR A CLOCK THAT
16:05:36 22 WOULD SIT THERE FOR THE CELL PHONES -- I'M SORRY --
16:05:42 23 WITHIN THE BROWSERS, SIMPLE GAMES WITHIN A BROWSER
16:05:46 24 THAT YOU CAN POP UP, THAT YOU CAN PLAY SUDUKO, IF
16:05:50 25 YOU WANT TO, A MORTGAGE CALCULATOR ON THE WEB PAGE.

16:05:53 1 AN APPLLET IS LIKE ANY OTHER PROGRAM, IT
16:05:58 2 CAN BE WRITTEN IN ANY OF THE NUMBER OF DIFFERENT
16:06:01 3 PROGRAMMING LANGUAGES. THAT WILL BE MORE
16:06:05 4 SIGNIFICANT IN JUST A LITTLE WHILE.

16:06:12 5 THE PRINCIPAL ISSUE CONCERNING APPLETS, I
16:06:17 6 BELIEVE I HEARD DISCUSSION ABOUT IT EARLIER TODAY
16:06:19 7 IS THE NOTION OF OPERATING SYSTEM INDEPENDENCE OR
16:06:21 8 OPERATING SYSTEM DEPENDENCE FOR THE APPLLET ITSELF.

16:06:25 9 SO JUST TO CHARACTERIZE WHAT AN OPERATING
16:06:28 10 SYSTEM INDEPENDENT APPLLET WOULD BE, WE HAVE AN
16:06:31 11 EXAMPLE OF SOMETHING THAT RUNS WITHIN A WEB BROWSER
16:06:35 12 AND THAT SAME APPLICATION CAN RUN ON A WINDOWS
16:06:40 13 SYSTEM PERHAPS USING THE INTERNET EXPLORER OR ON A
16:06:44 14 MACINTOSH SYSTEM, AN APPLE SYSTEM, PERHAPS USING
16:06:48 15 THE SAFARI BROWSER, BUT THE THING IS THAT THE SAME
16:06:53 16 SOURCE CODE THAT DEFINES THE APPLLET OPERATES IN
16:06:59 17 BOTH OF THESE ENVIRONMENTS UNCHANGED AND THAT'S
16:07:02 18 WHAT OPERATING SYSTEM INDEPENDENCE MEANS.

16:07:07 19 FORTY YEARS AGO OR SO THE TERMS I.B.M.
16:07:11 20 AND COMPUTER WERE PRETTY MUCH SYNONYMOUS TO THE
16:07:14 21 GENERAL PUBLIC. I WAS WORKING IN COMPUTERS AT THE
16:07:18 22 TIME AND I WORKED ON HONEYWELL SYSTEMS AND I WORKED
16:07:21 23 ON NCR SYSTEMS AND I KNEW THE DIFFERENCE.

16:07:24 24 WITHIN THE GENERAL COMMUNITY NOW THE
16:07:27 25 NOTION OF WHAT AN APPLLET IS, IS THAT IT'S COMMONLY

16:07:30 1 CONSIDERED TO BE A JAVA APPLET. THAT'S WHAT MOST
16:07:35 2 PEOPLE THINK OF IF THEY THINK OF APPLETS IF THEY
16:07:37 3 THINK OF ANYTHING AT ALL.

16:07:39 4 JAVA APPLETS ARE INTENDED TO BE AND ARE
16:07:43 5 ALMOST EXCLUSIVELY INTENDED TO BE A JAVA APPLET.
16:07:47 6 THAT IS A JAVA APPLET WORKS IN WHAT IS CALLED A
16:07:52 7 SAND BOX AND JAVA PREVENTS THE APPLET FROM DOING
16:07:56 8 THINGS THAT ARE SPECIFIC TO A PARTICULAR OPERATING
16:07:59 9 SYSTEM.

16:08:00 10 THE COURT: SO YOU SAID IF MOST PEOPLE
16:08:02 11 HEAR THE WORD "APPLET" THEY'RE GOING TO ASSUME IT'S
16:08:04 12 A JAVA APPLET.

16:08:07 13 MR. COLE: THEY'RE GOING TO ASSUME IT'S A
16:08:08 14 JAVA APPLET.

16:08:11 15 THE COURT: WHY IS THAT?

16:08:14 16 MR. COLE: THAT'S WHY BECAUSE PEOPLE
16:08:15 17 DON'T SAY FACIAL TISSUES, THEY SAY KLEENEX. AND
16:08:18 18 CERTAINLY WITHIN THE GENERAL POPULATION THAT'S TRUE
16:08:21 19 AND THE POPULATION OF COMPUTER PROGRAMMERS HAS
16:08:25 20 BECOME VERY LARGE SINCE 40 YEARS AGO WHEN I WAS
16:08:28 21 DOING THIS AND EVEN IN THE COMPUTER PROGRAMMER
16:08:32 22 POPULATION, IT'S NOT UNCOMMON TO SEE PEOPLE WHOSE
16:08:35 23 ONLY EXPOSURE TO WRITING APPLETS IS USING JAVA
16:08:39 24 APPLETS. AND THEY OFFER COURSES AT UNIVERSITIES
16:08:43 25 THAT ONLY DISCUSS JAVA APPLETS AND THEY DON'T

16:08:45 1
16:08:45 2
16:08:47 3
16:08:51 4
16:08:53 5
16:08:55 6
16:09:00 7
16:09:04 8
16:09:06 9
16:09:09 10
16:09:16 11
16:09:19 12
16:09:23 13
16:09:26 14
16:09:32 15
16:09:39 16
16:09:47 17
16:09:49 18
16:09:52 19
16:09:55 20
16:09:56 21
16:09:58 22
16:10:00 23
16:10:05 24
16:10:07 25

DISCUSS OTHERS.

THE COURT: AND IS THAT BECAUSE THE FIRST
APPLETS WERE ALL JAVA APPLETS?

MR. COLE: NOT EXACTLY, ANYMORE THAN THE
FIRST COMPUTERS WERE I.B.M. COMPUTERS. IT'S JUST
THAT THEY HAVE PENETRATED THE MARKET VERY SERIOUSLY
AND IT'S A BRAND.

THE COURT: OKAY. BUT IT MUST HAVE BEEN
ONE OF THE EARLIER ONES.

MR. COLE: IT'S FAIRLY EARLY. THE TERMS
AND IN THE RESEARCH THAT I DID THERE WAS REFERENCE
TO THE TERMS APPLLET IN EARLY 1990. THE JAVA DID
NOT EXIST UNTIL EARLY 1995.

SO THE TERM APPLLET PRECEDES THE JAVA
APPLETS, BUT LIKE I SAY, IT'S BECOME VERY POPULAR
IMPLEMENTATION OR METHOD OF IMPLEMENTING APPLETS.

THE COURT: GO AHEAD.

MR. COLE: SO THE JAVA APPLETS ARE
INTENDED TO BE AND ARE ALMOST EXCLUSIVELY OPERATING
SYSTEM INDEPENDENT.

BUT JAVA IS NOT THE ONLY LANGUAGE IN
WHICH ONE CAN WRITE APPLETS. FOR INSTANCE, AS I
SAID, THE APPLLET TERM PREDATES THE EMERGENCE OF
JAVA AS A PROGRAMMING LANGUAGE.

EXAMPLES ARE SHOWN HERE. APPLESCRIPT IS

16:10:14 1 A PARTICULAR LANGUAGE THAT IS USED FOR DOING
16:10:17 2 OPERATING SYSTEMS DOT TYPE PROGRAMMING ON AN APPLE
16:10:20 3 MACINTOSH COMPUTER.

16:10:21 4 APPLESCRIPT APPLETS ARE PRETTY COMMON,
16:10:26 5 AND THEY RUN ONLY ON THE MAC OS OPERATING SYSTEM.

16:10:31 6 THE COURT: AND WHAT DOES IT DO?

16:10:34 7 MR. COLE: WHAT DOES IT DO?

16:10:36 8 THE COURT: YEAH.

16:10:37 9 MR. COLE: WELL, THE SAME TYPES OF THINGS
16:10:39 10 THAT I DESCRIBED EARLIER. IT'S POSSIBLE TO -- IN
16:10:42 11 APPLESCRIPT IT'S POSSIBLE TO IMPLEMENT VERY SMALL
16:10:45 12 UTILITIES THAT DO LITTLE HELPER FUNCTIONS FOR
16:10:51 13 PROGRAMMERS OR COMPUTER USERS.

16:10:56 14 THERE ARE EXAMPLES OF RESETTING THE CLOCK
16:11:00 15 TIME. I DON'T REMEMBER RIGHT NOW WHAT THEY WERE,
16:11:03 16 SOME OF THE ONES THAT I LOOKED AT, BUT YOU CAN, FOR
16:11:08 17 INSTANCE, USE THE APPLESCRIPT WHEN YOU START YOUR
16:11:10 18 COMPUTER TO START UP A PARTICULAR APPLICATION FOR
16:11:15 19 YOU.

16:11:16 20 IT'S A HELPER TYPE OF OPERATION. OR
16:11:21 21 TO -- PROGRAMMERS WHO DO THIS WHO DON'T USE THE
16:11:25 22 GRAPHICAL USER INTERFACE OR USE THE COMMAND LINE
16:11:29 23 FOR THE INTERFACE USERS, YOU CAN USE AN APPLESCRIPT
16:11:32 24 TO PUT YOU IN THE RIGHT POSITION, THE RIGHT
16:11:34 25 DIRECTORY TO DO YOUR WORK.

16:11:36 1 THE COURT: DOES IT HAVE A MULTITASKING
16:11:39 2 FUNCTION OR NOT?

16:11:40 3 MR. COLE: THE APPLESCRIPT IS --

16:11:42 4 THE COURT: NOT THE APPLESCRIPT, JUST THE
16:11:45 5 APPLETT.

16:11:48 6 MR. COLE: AN APPLETT, AN APPLETT IS A
16:11:50 7 MECHANISM FOR DOING MULTITASKING OR IT CAN BE AT
16:11:54 8 LEAST. IT'S NOT NECESSARILY SHOW.

16:11:55 9 AND THE -- WHETHER YOU ASCRIBE THE
16:12:01 10 MULTITASK TO THE APPLETT OR TO THE APPLICATION THAT
16:12:04 11 IT'S ASSOCIATED WITH OR TO THE OPERATING SYSTEM,
16:12:07 12 APPLETT IS A MECHANISM FOR IMPLEMENTING A MULTITASK
16:12:12 13 PROCESS.

16:12:12 14 THE COURT: AND IS IT SORT OF A WORD THAT
16:12:14 15 COMES FROM APPLICATION?

16:12:18 16 MR. COLE: YES, IN THE SAME WAY THAT THE
16:12:20 17 WORD APP ON YOUR PHONE COMES FROM APPLICATION, THE
16:12:23 18 TERM CONNOTES SOMETHING THAT IS, AGAIN, SMALL,
16:12:30 19 UNAMBITIOUS, JUST VERY TIGHTLY FOCUSSED IN WHAT IT
16:12:33 20 DOES.

16:12:35 21 THE APPLETTs ARE ALSO COMBINED TOGETHER ON
16:12:39 22 THE WINDOWS OPERATING SYSTEM, FOR INSTANCE, THERE'S
16:12:42 23 A -- THERE'S A GROUP OF APPLETTs THAT ARE CALLED THE
16:12:45 24 CONTROL PANEL APPLETTs AND YOU RUN A CONTROL PANEL
16:12:48 25 MENU AND IT GIVES YOU 10 OR 15 OR 20 DIFFERENT

16:12:54 1 LITTLE THINGS THAT YOU CAN DO ON YOUR COMPUTER AND
16:12:56 2 THEY'RE CALLED APPLETS.

16:12:58 3 THE COURT: AND WHAT DOES SMALL IN THIS
16:13:00 4 CONTEXT MEAN?

16:13:01 5 DOES IT MEAN INCREMENTAL LIKE ITS
16:13:03 6 FUNCTION IS INCREMENTAL OR ITS SIZE?

16:13:06 7 MR. COLE: SMALL CAN BE CHARACTERIZED
16:13:08 8 EITHER WAY. LIKE I SAID, IT'S UNAMBITIOUS. IT MAY
16:13:11 9 BE WHAT LOOKS LIKE A VERY SIMPLE THING.

16:13:14 10 SO, FOR INSTANCE, IF YOU'RE PLAYING MUSIC
16:13:17 11 ON YOUR PHONE, WHILE THE MUSIC IS PLAYING, YOU CAN
16:13:24 12 SWITCH OVER AND SLIDE THROUGH THE DIFFERENT ALBUMS
16:13:28 13 THAT ARE IN YOUR MUSIC COLLECTION AND PICK THE NEXT
16:13:32 14 ALBUM FOR THE SONG THAT YOU WANT TO PLAY NEXT.

16:13:35 15 THAT ABILITY TO CONTINUE TO PLAY AND THEN
16:13:41 16 GO IN AND SELECT THE NEXT THING THAT YOU WANT TO DO
16:13:43 17 WHILE THE PLAY IS GOING ON MIGHT BE AN APPLETT.

16:13:47 18 IT MIGHT ALSO BE AN APPLETT WHEN YOU --
16:13:55 19 LET'S SEE. IF YOU TOOK A SMALL PART OF SAY THE --
16:14:03 20 IF YOU WERE TRYING TO JUST RECEIVE AN E-MAIL THAT
16:14:05 21 WAS COMING IN OR RECEIVE A TEXT MESSAGE THAT WAS
16:14:08 22 COMING IN WHILE YOUR SONG WAS PLAYING, THAT MIGHT
16:14:10 23 BE AN APPLETT AS WELL.

16:14:11 24 BUT IT'S A PIECE OF SOMETHING RATHER THAN
16:14:13 25 BEING A FULL-BLOWN APPLICATION LIKE A WORD

16:14:20 1 PROCESSOR OR A SPREADSHEET OR SOMETHING LIKE THAT.

16:14:22 2 THE COURT: AND IS APPLICATION DIFFERENT
16:14:24 3 THAN PROGRAM OR ARE THOSE THE SAME THINGS OR --

16:14:28 4 MR. COLE: NOT TERRIBLY DIFFERENT.

16:14:29 5 PROGRAM IS A VERY GENERIC TERM AND APPLICATIONS
16:14:35 6 TEND TO BE A SUBSET OF WHAT YOU MIGHT THINK OF AS
16:14:37 7 ALL POSSIBLE PROGRAMS.

16:14:39 8 AN APPLICATION -- AND, AGAIN, IT DEPENDS
16:14:41 9 ON WHERE YOU'RE STANDING WHEN YOU LOOK AT THIS.
16:14:43 10 ONE MAN'S APPLICATION IS ANOTHER MAN'S UTILITY, BUT
16:14:47 11 AN APPLICATION PROGRAM GENERALLY SPEAKING IS
16:14:50 12 SOMETHING THAT HAS COHERENT USAGE LIKE, AGAIN, GO
16:14:55 13 BACK TO WORD PROCESSORS. AND YOU GENERALLY,
16:14:59 14 ALTHOUGH YOU CAN DO SOME, YOU DON'T GENERALLY USE
16:15:05 15 YOUR WORD PROCESSOR TO DO SPREADSHEET TYPE
16:15:06 16 FUNCTIONS. NEVERTHELESS THE WORD PROCESSOR HAS
16:15:10 17 VERY LARGE CAPABILITY FOR FORMATTING AND ORGANIZING
16:15:12 18 THE DOCUMENTS THAT YOU'RE WORKING ON. IT'S A
16:15:13 19 FULL-BLOWN APPLICATION.

16:15:14 20 OTHER APPLICATIONS IN DIFFERENT
16:15:17 21 CIRCUMSTANCES WOULD BE MANUFACTURING MANAGEMENT
16:15:21 22 WOULD BE CONSIDERED AN APPLICATION. SOMETHING LIKE
16:15:27 23 AN HR SYSTEM ON A LARGE COMPUTER WOULD ALSO BE
16:15:32 24 CONSIDERED AN APPLICATION.

16:15:33 25 YOU MIGHT BUNDLE SEVERAL APPLICATIONS

16:15:36 1 TOGETHER AND CALL IT A SYSTEM. SO THOSE ARE FAIRLY
16:15:40 2 COMMON CONNOTATIONS OF THE DIFFERENT TERMS.

16:15:45 3 PROGRAM IS A BIT BROADER TERM THAN
16:15:47 4 APPLICATION. APPLICATION TENDS TO BE SOMETHING
16:15:49 5 THAT PEOPLE INTERACT WITH.

16:15:53 6 OKAY. SO THE NOTION HERE WHAT THIS SLIDE
16:16:03 7 REPRESENTS IS THE FACT THAT FIRST OFF YOU CAN WRITE
16:16:04 8 APPLICATIONS IN MANY DIFFERENT LANGUAGES. THESE
16:16:07 9 ARE JUST A FEW, BUT I'M SURE THAT THERE ARE DOZENS
16:16:10 10 AND DOZENS OF PROGRAM LANGUAGES THAT IMPLEMENT
16:16:19 11 APPLETS AND SOME OF THESE APPLETS ARE GOING TO BE
16:16:22 12 SPECIFIC TO A PARTICULAR OPERATING SYSTEM.

16:16:23 13 I DON'T KNOW OF ANY SYSTEM OTHER THAN
16:16:28 14 MACINTOSH THAT RUNS APPLESCRIPT, FOR INSTANCE.

16:16:31 15 WHILE THERE ARE PLENTY OF SYSTEMS THAT
16:16:34 16 RUN PYTHON PROGRAMS, YOU CAN NEVERTHELESS WRITE A
16:16:39 17 PYTHON PROGRAM THAT RELIES ON A PARTICULAR FEATURE
16:16:40 18 OF THE OPERATING SYSTEM THAT YOU'RE WORKING ON AND
16:16:43 19 THAT APPLLET WOULD BE DEPENDENT ON THAT OPERATING
16:16:49 20 SYSTEM IN ORDER TO FUNCTION.

16:16:49 21 THE SAME HAS TO DO WITH OTHER PROGRAMMING
16:16:52 22 LANGUAGES THAT COULD LATCH ON TO SOME PARTICULAR
16:16:55 23 FEATURE OF WINDOWS THAT THEY RELY ON. AND SO IT'S
16:16:58 24 A QUESTION OF WHAT THE GOAL OF THE APPLLET IS, HOW
16:17:01 25 IT'S WRITTEN, AND WHETHER IT -- THE PROGRAM AS

16:17:09 1 WRITTEN UNCHANGED WILL EXECUTE OR FUNCTION ON A
16:17:15 2 DIFFERENT OPERATING SYSTEM.

16:17:20 3 UNLESS YOU HAVE OTHER QUESTIONS, THAT'S
16:17:23 4 OUR PRESENTATION ON THE '711. EXCUSE ME.

16:17:31 5 THE COURT: WOULD YOU LIKE SOME WATER?

16:17:32 6 MR. COLE: IF YOU HAVE A QUESTION OR TWO,
16:17:34 7 YES.

16:17:34 8 THE COURT: LET ME ASK YOU JUST ONE QUICK
16:17:37 9 QUESTION, HOW COME YOUR -- WELL, THIS IS REALLY
16:17:41 10 JUST A CLAIM CONSTRUCTION ISSUE. I'LL SAVE IT FOR
16:17:45 11 FRIDAY. I'M GOOD. THANK YOU.

16:17:47 12 MR. COLE: OKAY.

16:17:57 13 MR. BASSETT: GOOD AFTERNOON, YOUR HONOR.
16:18:03 14 AND JUST TO CLARIFY ONE QUESTION THAT YOU HAD ASKED
16:18:05 15 EARLIER ABOUT WAS THIS THE ONLY CLAIM TERM THAT WE
16:18:09 16 DISPUTED REGARDING THE SAMSUNG PATENTS?

16:18:12 17 TO BE CLEAR, THE ANSWER WAS NO, BUT WE,
16:18:15 18 IN AN ATTEMPT TO COMPLY WITH THE COURT'S ORDERS,
16:18:19 19 HAD NARROWED IT DOWN TO TEN CLAIM TERMS. WE
16:18:21 20 NARROWED IT DOWN AND ENDED UP WITH ONLY ONE CLAIM
16:18:24 21 TERM FROM THE SAMSUNG PATENTS THAT WE ARE GOING TO
16:18:27 22 BE TALKING ABOUT ON FRIDAY.

16:18:28 23 THAT DOESN'T MEAN OBVIOUSLY THAT THERE
16:18:30 24 ARE NOT NECESSARILY OTHER CLAIM TERMS THAT THE
16:18:32 25 PARTIES DISPUTE, BUT WE'RE TRYING TO MAKE SURE THAT

16:18:34 1 WE FOCUSED ON THE CLAIM TERMS THAT --

16:18:37 2 THE COURT: DID YOU SELECT "SYMBOL" OF
16:18:39 3 THE '792 AND "APPLET" OF THE '711 OR WERE THOSE
16:18:45 4 SAMSUNG'S PICKS?

16:18:46 5 MR. BASSETT: I THINK WE PICKED BOTH OF
16:18:48 6 THOSE ORIGINALLY, YOUR HONOR.

16:18:49 7 THE COURT: ALL RIGHT.

16:18:50 8 MR. BASSETT: SO MR. COLE HAS ALREADY
16:18:54 9 GIVEN THE BACKGROUND OF OUR DISPUTE. SO THERE'S NO
16:18:57 10 NEED TO GO THROUGH THAT IN OUR SLIDE. SO WE'LL
16:18:59 11 JUST GO STRAIGHT TO SLIDE 12 IN OUR PRESENTATION.

16:19:01 12 AS MR. COLE PROPERLY SUGGESTS THE DISPUTE
16:19:04 13 THAT YOU'RE GOING TO HEAR ABOUT ON FRIDAY IS GOING
16:19:06 14 TO COME DOWN TO THE QUESTION OF WHETHER APPLLET IS
16:19:09 15 OPERATING SYSTEM INDEPENDENT OR NOT.

16:19:11 16 BUT WHAT DOES IT MEAN TO BE OPERATING
16:19:14 17 SYSTEM INDEPENDENT?

16:19:15 18 TO GIVE SOME BACKGROUND TO THIS IDEA,
16:19:18 19 LET'S START BY DISCUSSING FIRST WHAT AN OPERATING
16:19:21 20 SYSTEM IS AND DOES.

16:19:23 21 AS THIS SLIDE ILLUSTRATES, AN OPERATING
16:19:27 22 SYSTEM MANAGES COMPUTER HARDWARE RESOURCES AND
16:19:31 23 PROVIDES COMMON SERVICES IN A COMMON INTERFACE FOR
16:19:37 24 APPLICATIONS SOFTWARE.

16:19:37 25 WHAT DOES THAT MEAN? WELL, BASICALLY THE

16:19:38 1 OPERATING SYSTEM CONTROLS ALL OF THE RESOURCES OF
16:19:41 2 THE COMPUTER. IT PROVIDES A COMMON INTERFACE FOR
16:19:44 3 APPLICATIONS TO INTERFACE WITH THOSE RESOURCES SUCH
16:19:46 4 AS A KEYBOARD, A MOUSE OR A PRINTER.

16:19:49 5 THE OPERATING SYSTEM HAS TO SHARE ALL OF
16:19:51 6 THESE RESOURCES AMONG THESE DIFFERENT APPLICATIONS
16:19:53 7 AND PIECES OF HARDWARE. AND IT DOES SO ACCORDING
16:19:56 8 TO A SET OF PRIORITIES.

16:20:00 9 FOR INSTANCE, IF YOU HAVE A CELL PHONE,
16:20:02 10 THE TOP PRIORITY MOST LIKELY FOR THE OPERATING
16:20:05 11 SYSTEM IN THAT CELL PHONE IS TO GOING TO BE TO MAKE
16:20:07 12 SURE THAT YOU CAN RECEIVE AN INCOMING CALL, AND
16:20:10 13 THAT WILL SUPERSEDE ANYTHING ELSE ACCORDING TO THE
16:20:12 14 OPERATION OF THAT CELL PHONE.

16:20:13 15 SIMILARLY, IF YOU HAVE TWO PARTS OF THE
16:20:16 16 COMPUTER SYSTEM THAT WANT TO PRINT AT THE SAME
16:20:20 17 TIME, THE OPERATING SYSTEM IS WHAT DECIDES WHO GETS
16:20:23 18 PRIORITY.

16:20:23 19 AND IN 2005, THERE WERE MULTIPLE
16:20:26 20 OPERATING SYSTEMS THAT WERE WELL-KNOWN: MICROSOFT,
16:20:29 21 WINDOWS, AND APPLE MAC OSX JUST BEING TWO THAT WERE
16:20:35 22 KNOWN AT THE TIME.

16:20:36 23 NOW, WE SAID OPERATING SYSTEMS MANAGED
16:20:39 24 RESOURCES AMONG APPLICATIONS. AN APPLICATION, AS
16:20:41 25 MR. COLE SUGGESTED, IS A PROGRAM THAT IS USED TO

16:20:44 1 PERFORM A SPECIFIC TASK. AND IT INCLUDES FAMILIAR
16:20:47 2 THINGS SUCH AS WORD PROCESSORS, E-MAIL PROGRAMS,
16:20:51 3 WEB BROWSERS AND THE LIKE.

16:20:52 4 APPLICATIONS GENERALLY RUN ON AN
16:20:56 5 OPERATING SYSTEM, AND THE OPERATING SYSTEM IN TURN
16:20:59 6 PROVIDES SOME OF THEIR FEATURES AND FUNCTIONALITY.

16:21:02 7 ONE EXAMPLE MIGHT BE, FOR INSTANCE, AN
16:21:04 8 OPERATING SYSTEM THAT PROVIDES BASIC WINDOWS
16:21:06 9 FUNCTIONALITY FOR A WORD PROCESSING PROGRAM.

16:21:09 10 WHILE THE WORD PROCESSING APPLICATION
16:21:12 11 ITSELF PROVIDES THE SPECIFICS OF HOW THE WORDS
16:21:14 12 APPEAR ON THE SCREEN, THAT TYPE OF APPLICATION IS
16:21:17 13 CONSIDERED OPERATING SYSTEM DEPENDENT.

16:21:20 14 THE CODE IS SPECIFIC TO THE PARTICULAR
16:21:22 15 OPERATING SYSTEM, AND IT'S NOT PORTABLE TO ANOTHER
16:21:25 16 OPERATING SYSTEM.

16:21:26 17 FOR EXAMPLE, WORD PROCESSING, E-MAIL,
16:21:30 18 WORD BROWSER APPLICATIONS ARE ALL VERY DIFFERENT
16:21:33 19 AND SPECIFIC BETWEEN MAC SYSTEMS AND WINDOWS BASED
16:21:37 20 SYSTEMS FOR INSTANCE.

16:21:40 21 BUT AS OUR NEXT SLIDE ILLUSTRATES, IT IS
16:21:44 22 POSSIBLE FOR A PROGRAM TO BE INDEPENDENT OF THE
16:21:47 23 OPERATING SYSTEM.

16:21:47 24 AS SHOWN IN THIS ILLUSTRATION, A PROGRAM
16:21:49 25 CAN OPERATE INSIDE OF WHAT IS CALLED A HOST

16:21:52 1 APPLICATION AND IT CAN BE ISOLATED FROM AND
16:21:55 2 INDEPENDENT OF THE OPERATING SYSTEM.

16:21:57 3 THE HOST APPLICATION PROVIDES THE
16:22:00 4 RESOURCES FOR EXECUTING THE PROGRAM AND KEEPS IT
16:22:03 5 SEPARATE FROM THE OPERATING SYSTEM AND THE
16:22:06 6 HARDWARE. THESE TYPES OF PROGRAMS ARE SOMETIMES
16:22:09 7 SAID TO BE NESTED INSIDE OF THE HOST APPLICATION.

16:22:12 8 A COMMON EXAMPLE OF A HOST APPLICATION IS
16:22:15 9 A WEB BROWSER WHICH CAN RUN PROGRAMS DOWNLOADED
16:22:18 10 FROM THE INTERNET WITHIN IT INDEPENDENT OF THE
16:22:20 11 OPERATING SYSTEM.

16:22:21 12 IT CAN BE DESIRABLE TO HAVE A PROGRAM RUN
16:22:29 13 WITHIN ANOTHER HOST APPLICATION FOR A NUMBER OF
16:22:32 14 REASONS, AND I'LL TOUCH ON THOSE IN JUST A MOMENT.

16:22:34 15 BUT FIRST IT'S IMPORTANT TO UNDERSTAND
16:22:36 16 THE KEY FEATURE OF AN OPERATING SYSTEM INDEPENDENT
16:22:38 17 CODE. IT CAN BE USED BY MULTIPLE OPERATING SYSTEMS
16:22:42 18 ON MULTIPLE PLATFORMS WITHOUT BEING REWRITTEN.

16:22:45 19 NOW, THE TERM "OPERATING SYSTEM
16:22:48 20 INDEPENDENT" AND "PLATFORM INDEPENDENT" ARE
16:22:51 21 SOMETIMES USED INTERCHANGEABLY. THEY'RE SLIGHTLY
16:22:54 22 DIFFERENT, BUT I THINK FOR OUR PURPOSES THEY CAN BE
16:22:56 23 USED INTERCHANGEABLY.

16:22:58 24 AND WE PUT UP HERE JUST A DEFINITION OF
16:23:01 25 WHAT A PLATFORM IS AS IT'S USED IN THIS CONTEXT.

16:23:04 1 IT'S ESSENTIALLY A LOOSE TERM THAT GENERALLY REFERS
16:23:07 2 TO A COMBINATION OF HARDWARE AND OPERATING SYSTEMS
16:23:10 3 THAT WILL MOSTLY RUN THE SAME SOFTWARE.

16:23:12 4 SO YOU WILL SOMETIMES HEAR A PROGRAMMER
16:23:17 5 REFER TO OPERATING SYSTEM INDEPENDENT OR PLATFORM
16:23:19 6 INDEPENDENT AND AGAIN I THINK FOR OUR PURPOSES IT
16:23:21 7 MEANS ESSENTIALLY THE SAME THING.

16:23:23 8 NOW, LET'S LOOK AT SOME OF THE ADVANTAGES
16:23:25 9 OF OPERATING SYSTEM INDEPENDENT. WHY WOULD ONE
16:23:27 10 WANT TO WRITE AN OPERATING SYSTEM INDEPENDENT
16:23:30 11 PROGRAM IN THE FIRST PLACE?

16:23:32 12 WELL, THE FIRST ADVANTAGE IS SECURITY.
16:23:35 13 THE OPERATING SYSTEM INDEPENDENT PROGRAM HAS TO DO
16:23:38 14 EVERYTHING THROUGH THE HOST APPLICATION WHICH IT IS
16:23:41 15 NESTED. THAT MEANS THE HOST APPLICATION, SUCH AS A
16:23:43 16 WEB BROWSER, CAN PROTECT THE OPERATING SYSTEM AND
16:23:46 17 THE HARDWARE FROM A POTENTIALLY MALICIOUS PROGRAM.
16:23:49 18 FOR EXAMPLE, A PROGRAM OBTAINED ON THE INTERNET MAY
16:23:52 19 NOT BE TRUSTED.

16:23:53 20 SO IT'S GOOD TO KEEP THAT PROGRAM FROM
16:23:55 21 ACCESSING THE COMPUTER'S OPERATING SYSTEM AND
16:23:57 22 HARDWARE AND POTENTIALLY CAUSING DAMAGE.

16:23:59 23 THE HOST APPLICATION CAN PROVIDE SECURITY
16:24:02 24 PROTOCOL TO THE PROGRAMS THAT ARE NESTED WITHIN IT.

16:24:05 25 FOR EXAMPLE, IT CAN REFUSE TO READ OR

16:24:08 1 WRITE TO THE FILE SYSTEM IF THE REQUEST COMES FROM
16:24:10 2 AN UNTRUSTED PROGRAM.

16:24:15 3 THE SECOND ADVANTAGE AND THIS ONE WE
16:24:17 4 ALREADY TOUCHED UPON IS OPERATING SYSTEM
16:24:20 5 INDEPENDENT PROGRAM IS IT'S ACCESSIBLE TO A WIDE
16:24:23 6 USER BASE.

16:24:23 7 AGAIN, USING THE INTERNET EXAMPLE, USING
16:24:27 8 THE USERS WITH VARIOUS TYPES OF COMPUTERS AND
16:24:29 9 OPERATING SYSTEMS CAN DOWNLOAD THE SAME PROGRAM
16:24:31 10 FROM THE INTERNET AND THAT'S VERY BENEFICIAL FOR
16:24:33 11 CONTENT THAT YOU WANT TO BE ABLE TO HAVE WIDELY
16:24:36 12 DISTRIBUTED. IT DOESN'T HAVE TO BE REWRITTEN
16:24:39 13 MULTIPLE TIMES FOR DIFFERENT OPERATING SYSTEMS.

16:24:40 14 NOW, AS MR. COLE TOUCHED UPON, JAVA
16:24:44 15 APPLETS ARE ONE TYPICAL AND PROBABLY I THINK THE
16:24:47 16 MOST COMMON EXAMPLE OF AN OPERATING SYSTEM
16:24:50 17 INDEPENDENT PROGRAM THAT RUNS WITHIN A HOST
16:24:53 18 APPLICATION.

16:24:54 19 WHAT IS JAVA? JAVA IS A COMPUTER
16:24:58 20 PROGRAMMING LANGUAGE THAT IS COMMONLY USED TO
16:25:00 21 DEVELOP APPLICATIONS THAT RUN ON A VARIETY OF
16:25:03 22 DIFFERENT DEVICES AND OPERATING SYSTEMS AS OFTEN
16:25:05 23 USED FOR PROGRAMS DOWNLOADED OVER THE INTERNET AND
16:25:08 24 RUN WITHIN A WEB BROWSER AND IN THAT CIRCUMSTANCE
16:25:11 25 THE WEB BROWSER WOULD BE THE HOST APPLICATION THAT

16:25:14 1 WE REFER TO IN THE OTHER SLIDES THAT NEST THE
16:25:17 2 PROGRAM WITHIN IT.

16:25:21 3 LET'S TAKE A LITTLE MORE DETAILED LOOK AT
16:25:24 4 HOW JAVA WORKS AND THERE'S A LOT ON THIS SLIDE BUT
16:25:27 5 I'LL GO THROUGH IT AND TRY TO BREAK IT DOWN.

16:25:29 6 JAVA IS A HIGH-LEVEL PROGRAM THAT NEEDS
16:25:31 7 TO BE DECOMPOSED INTO A MACHINE CODE. MACHINE CODE
16:25:36 8 IS THE LOWEST LEVEL PROGRAMMING LANGUAGE. THAT'S
16:25:39 9 THE ZEROS AND ONES THAT WE SEE ON THE RIGHT THAT
16:25:43 10 WE'RE ALL FAMILIAR WITH, THE BINARY CODE THAT
16:25:45 11 COMPUTERS RUN ON.

16:25:46 12 THE MACHINE CODE IS DIFFERENT, HOWEVER,
16:25:48 13 FOR DIFFERENT TYPES OF COMPUTERS. THE MACHINE CODE
16:25:50 14 THAT RUNS ON A MACINTOSH IS DIFFERENT THAN THE
16:25:53 15 MACHINE CODE THAT RUNS ON A WINDOWS BASED SYSTEM OR
16:25:56 16 LENOX BASED SYSTEM. THEY HAVE DIFFERENT MACHINE
16:25:58 17 CODES.

16:25:59 18 SO THE FIRST STEP IN TURNING A JAVA
16:26:02 19 PROGRAM INTO THE MACHINE CODE THAT'S USEABLE BY THE
16:26:06 20 COMPUTERS IS TO WRITE THE SOURCE CODE OF JAVA.

16:26:08 21 AND THAT'S WHAT APPEARS UP HERE IN THE
16:26:12 22 UPPER LEFT-HAND CORNER.

16:26:14 23 THE SOURCE CODE IS ESSENTIALLY A MODIFIED
16:26:17 24 FORM OF ENGLISH AND THAT'S HOW THE PROGRAMS ARE
16:26:19 25 ORIGINALLY WRITTEN AND THEN THE SOURCE CODE IS THEN

16:26:22 1 RUN THROUGH A JAVA COMPILER.

16:26:24 2 THE RESULT THAT COMES OUT OF THE JAVA
16:26:26 3 COMPILER IS SOMETHING THAT IS CALLED JAVA BYTE
16:26:30 4 CODE. IT'S THE JAVA BYTE CODE THAT CAN BE
16:26:33 5 DISTRIBUTED TO ANY TYPE OF COMPUTER BECAUSE IT'S A
16:26:35 6 COMMON LANGUAGE THAT ANY COMPUTER CAN READ.

16:26:39 7 BUT THEN THAT COMPUTER THEN IN TURN HAS
16:26:42 8 TO TAKE THE JAVA BYTE CODE AND RUN IT THROUGH THE
16:26:45 9 INTERPRETER, WHICH IS REPRESENTED BY THE GREEN
16:26:48 10 ARROWS, AND IT'S THE INTERPRETER WITHIN THE
16:26:50 11 OPERATING SYSTEMS AND COMPUTERS THAT TURNS THAT
16:26:53 12 COMMON JAVA BYTE CODE LANGUAGE INTO THE SPECIFIC
16:26:57 13 MACHINE CODE THAT CAN BE USED BY THE VARIOUS
16:27:00 14 COMPUTERS.

16:27:01 15 THAT'S WHY JAVA IS KNOWN AS BEING
16:27:03 16 PLATFORM INDEPENDENT OR OPERATING SYSTEM
16:27:05 17 INDEPENDENT BECAUSE THE JAVA BYTE CODE IS A
16:27:08 18 UNIVERSAL LANGUAGE THAT THEN GETS INTERPRETED BY
16:27:12 19 THE DIFFERENT COMPUTER ON WHICH IT'S LOADED.

16:27:14 20 NOW, LEADING UP TO 2005 MOBILE PHONE
16:27:18 21 MANUFACTURERS INCREASINGLY HAVE PRODUCED JAVA
16:27:21 22 ENABLED DEVICES.

16:27:21 23 AND BY 2005, JAVA WAS TYPICAL, BUT AS
16:27:25 24 MR. COLE SUGGESTED, OTHER EXAMPLES EXISTED OF
16:27:29 25 OPERATING SYSTEM INDEPENDENT PROGRAMS THAT RAN WITH

16:27:31 1
16:27:32 2
16:27:34 3
16:27:37 4
16:27:38 5
16:27:40 6
16:27:42 7
16:27:43 8
16:27:46 9
16:27:49 10
16:27:49 11
16:27:52 12
16:27:57 13
16:28:00 14
16:28:02 15
16:28:04 16
16:28:06 17
16:28:08 18
16:28:10 19
16:28:12 20
16:28:15 21
16:28:15 22
16:28:17 23
16:28:19 24
16:28:23 25

--

THE COURT: JAVA IS NON-PROPRIETARY,
RIGHT?

MR. BASSETT: I'M SORRY?

THE COURT: JAVA IS NOT PROPRIETARY, OR
IS IT?

MR. BASSETT: I BELIEVE IT IS PROPRIETARY
BUT IT IS LICENSED. FRANKLY, I DON'T KNOW THE
ANSWER TO THAT QUESTION, BUT I CAN FIND IT OUT
THOUGH, YOUR HONOR.

THE COURT: WELL, I'M JUST TRYING TO
FIGURE OUT WHY IT WOULDN'T ORIGINATE IN JAVA? I
THOUGHT JAVA WAS A MORE OPEN --

MR. BASSETT: JAVA IS WIDELY USED BY
COMPUTER PROGRAMMERS. WHETHER IT'S STILL
PROPRIETARY, I'M AFRAID I DON'T KNOW, YOUR HONOR,
BUT I CAN FIND OUT THE ANSWER TO THAT QUESTION.

THE COURT: GO AHEAD.

MR. BASSETT: IT CERTAINLY STARTED OUT AS
PROPRIETARY, BUT I JUST DON'T KNOW ITS CURRENT
STATUS.

THESE OTHER EXAMPLES, THERE ARE OTHER
EXAMPLES THAT INCLUDE PROGRAMS WRITTEN IN OTHER,
WHAT WE WOULD CALL INTERPRETED LANGUAGES THAT CAN
BE EXECUTED BY A HOST MACHINE RUNNING AN

16:28:27 1 INTERPRETER APPLICATION SUCH AS THOSE -- SUCH AS
16:28:30 2 WHAT WE ALREADY SAW IN JAVA.

16:28:32 3 OUR EXPERT TONY GIVARGIS, WHO YOU WILL
16:28:39 4 HEAR MORE ABOUT ON FRIDAY, SUGGESTS THAT PROGRAMS
16:28:43 5 SUCH AS FLASH, PYTHON, AND RUBY ARE SUCH
16:28:47 6 INTERPRETED LANGUAGES BECAUSE THEY ARE WRITTEN IN
16:28:50 7 THE COMMON LANGUAGE LIKE JAVA SCRIPT, ANALOGOUS TO
16:28:56 8 JAVA SCRIPT THEN INTERPRETED BY THE INDIVIDUAL
16:28:58 9 COMPUTERS TO THEN BREAK IT DOWN TO THE MACHINE CODE
16:29:01 10 MAKING THEM PLATFORM INDEPENDENT.

16:29:04 11 MR. COLE IS CORRECT THAT SOMETIMES THOSE
16:29:06 12 PROGRAMS CAN BE WRITTEN TO TAKE ADVANTAGE OF
16:29:08 13 CERTAIN PLATFORMS OR OPERATING SYSTEMS, BUT THEY
16:29:11 14 HAVE THE CAPABILITY OF BEING WRITTEN SO THAT THEY
16:29:14 15 CAN BE READ AND USED BY ANY OPERATING SYSTEM AND WE
16:29:17 16 WOULD SAY THAT THAT MAKES THEM OPERATING SYSTEM
16:29:21 17 INDEPENDENT, BUT WE'LL TALK MORE ABOUT THAT ON
16:29:23 18 FRIDAY.

16:29:23 19 AND THAT'S THE PRESENTATION THAT I HAVE,
16:29:25 20 YOUR HONOR, ON APPLETS, YOUR HONOR.

16:29:26 21 THE COURT: WHY ARE YOU ALL FIGHTING OVER
16:29:29 22 PLATFORM INDEPENDENT? IS THIS A NON-INFRINGEMENT
16:29:32 23 ISSUE?

16:29:33 24 MR. BASSETT: IT'S A NON-INFRINGEMENT
16:29:37 25 ISSUE, YOUR HONOR.

16:29:37 1 THE COURT: OKAY. AND BECAUSE?

16:29:39 2 MR. BASSETT: BECAUSE WE BELIEVE AND
16:29:41 3 WOULD ASSERT THAT THE APPLETS USED BY APPLE ARE NOT
16:29:47 4 OPERATING SYSTEM INDEPENDENT.

16:29:52 5 I'M SORRY. THEY DON'T USE APPLETS. THEY
16:29:54 6 USE SOMETHING THAT IS NOT OPERATING SYSTEM
16:29:56 7 INDEPENDENT, AND, THEREFORE, IT IS NOT AN APPLETT.

16:29:58 8 WHAT THEY USE TO EXECUTE THIS
16:30:02 9 MULTITASKING THAT IS CLAIMED IN THE '711 PATENT IN
16:30:05 10 THE APPLE SYSTEM IS OPERATING SYSTEM DEPENDENT. IT
16:30:09 11 CANNOT BE USED. IT CANNOT BE USED ACROSS OTHER
16:30:13 12 OPERATING SYSTEMS, AND, THEREFORE, IT IS NOT AN
16:30:16 13 APPLETT GIVEN WHAT WE BELIEVE IS THE PROPER
16:30:18 14 CONSTRUCTION OF THE CLAIM TERM APPLETT.

16:30:19 15 THE COURT: OKAY. OKAY. ALL RIGHT.
16:30:28 16 THANK YOU ALL.

16:30:29 17 MR. VERHOEVEN: I JUST WANT TO ASK A
16:30:30 18 QUESTION IF I MIGHT BEFORE WE LEAVE?

16:30:32 19 THE COURT: YES, YES.

16:30:33 20 MR. VERHOEVEN: ON FRIDAY, DOES YOUR
16:30:35 21 HONOR HAVE A PARTICULAR PREFERENCE ON HOW WE GO
16:30:36 22 ABOUT OUR PRESENTATIONS?

16:30:38 23 THE COURT: I'D LIKE TO GO TERM BY TERM
16:30:40 24 AND HAVE THE PATENTEE GO FIRST. AND WITH REGARD TO
16:30:52 25 THE SEQUENCE OF THE TERMS, I DON'T HAVE A

16:31:03 1 PREFERENCE THAT WAY, BUT I WOULD LIKE TO GO TERM BY
16:31:06 2 TERM AND DO VOLLEYBALL.

16:31:08 3 MR. VERHOEVEN: THANK YOU. THAT WILL
16:31:09 4 HELP US PREPARE.

16:31:10 5 MR. MCELHINNY: AND SO IN PREPARING, SOME
16:31:13 6 JUDGES LIKE A ONE-SENTENCE EXPLANATION OF WHY THIS
16:31:15 7 MATTERS AND SOME JUDGES DON'T WANT TO GET INTO WHY
16:31:20 8 IT MATTERS AT ALL.

16:31:21 9 THE COURT: I THINK THAT WOULD BE USEFUL.

16:31:22 10 MR. MCELHINNY: THANK YOU.

16:31:23 11 THE COURT: AND I HAVE QUESTIONS AS TO
16:31:25 12 EACH OF THE TERMS. SO IT'S GOING TO BE A
16:31:27 13 DISCUSSION AND MORE THAN A SET PRESENTATION IF
16:31:32 14 THAT'S OKAY WITH YOU ALL.

16:31:33 15 MR. MCELHINNY: THAT'S GREAT.

16:31:34 16 MR. VERHOEVEN: DID YOU WANT TO TELL US
16:31:36 17 ANY OF THOSE TODAY SO WE CAN PREPARE FOR THAT?

16:31:38 18 THE COURT: WELL, I WAS HOPING I WOULD
16:31:39 19 GET ANSWERS TODAY, BUT IF I'M NOT GETTING ANSWERS
16:31:42 20 TODAY, THEN IT'S 4:30 AND I'M GOING TO SUGGEST THAT
16:31:46 21 WE RECONVENE.

16:31:47 22 SO WE HAVE 10:00 AND IS IT 1:00 O'CLOCK?

16:31:51 23 MR. MCELHINNY: THAT'S WHAT YOU SAID.

16:31:52 24 THE COURT: SO WE'LL BE PROBABLY
16:31:54 25 BREAKING.

16:31:55 1 THE CLERK: YEAH, I THINK IT WAS SET FROM
16:31:57 2 10:00 TO 12:00 AND THEN 1:00 TO 3:00.

16:32:03 3 THE COURT: OKAY. WE'LL GO THROUGH THE
16:32:05 4 TERMS BACK AND FORTH.

16:32:06 5 ANYTHING ELSE? AND LET'S HANDLE THE
16:32:08 6 MOTION TO STRIKE ISSUE ON FRIDAY. AND THEN IS
16:32:13 7 THERE ANYTHING ELSE THAT WE NEED TO COVER BEFORE
16:32:15 8 THEN?

16:32:16 9 MR. VERHOEVEN: THE ONLY THING I CAN
16:32:18 10 THINK OF, YOUR HONOR, IS ON TWO OF THE PATENTS
16:32:20 11 THERE WAS A RULING ON THE I.T.C. IF YOUR HONOR IS
16:32:23 12 INTERESTED, WE COULD TRY TO MAKE SOME EFFORT TO GET
16:32:27 13 A CLAIM CONSTRUCTION RULING.

16:32:29 14 THE COURT: SO I SAW WHAT YOU ALL FILED
16:32:31 15 TO THE STAFF RECOMMENDATION AS TO A NUMBER OF THESE
16:32:34 16 TERMS. YOU'RE SAYING THERE WAS AN ACTUAL ALJ
16:32:38 17 RULING?

16:32:39 18 MR. VERHOEVEN: THERE WERE TWO PATENTS
16:32:40 19 THAT OVERLAPPED WITH AN INVESTIGATION THAT APPLE
16:32:43 20 HAD AGAINST MOTOROLA MOBILITY AT THE I.T.C. AND THE
16:32:47 21 ALJ ISSUED ITS INITIAL DETERMINATION, WHICH IS THE
16:32:51 22 FIRST RULING ON THE MERITS OF EVERYTHING ON FRIDAY,
16:32:55 23 AND FOUND NO VIOLATION AS TO ALL THREE ASSERTED
16:32:59 24 PATENTS.

16:33:00 25 WE'RE SORTING THROUGH IT BECAUSE THERE'S

16:33:01 1 A LOT OF CONFIDENTIALITY --

16:33:02 2 THE COURT: WELL, THEN DO YOU WANT ME TO
16:33:05 3 GO THROUGH WHAT IS HAPPENING IN AUSTRALIA AND IN
16:33:08 4 HOLLAND AND IN GERMANY? I REALLY DON'T THINK
16:33:10 5 THAT'S REALLY RELEVANT.

16:33:12 6 MR. VERHOEVEN: THE ONLY REASON I MENTION
16:33:14 7 IT IS YOU MADE SOME RULINGS ON CLAIM CONSTRUCTION,
16:33:16 8 AND WE DON'T WANT TO GIVE IT TO YOU IF YOU DON'T
16:33:19 9 WANT IT, AND I JUST THOUGHT I WOULD RAISE IT FOR
16:33:21 10 YOU.

16:33:21 11 MR. MCELHINNY: I HAVEN'T SEEN IT BECAUSE
16:33:23 12 OF THE CONFIDENTIALITY RULE OF THE I.T.C. I READ
16:33:27 13 THE NEWS PRESS RELEASE, BUT I HAVEN'T SEEN THE
16:33:31 14 RULINGS THEMSELVES.

16:33:32 15 MR. VERHOEVEN: I'M NOT ADVOCATING ONE
16:33:34 16 WAY OR THE OTHER, YOUR HONOR. SO I JUST WANTED TO
16:33:36 17 LET YOU KNOW, BUT WHATEVER YOU WANT WE'LL DO.

16:33:39 18 THE COURT: SO HOW DO YOU ALL HAVE IT
16:33:41 19 WITH THE CONFIDENTIALITY RESTRICTIONS?

16:33:44 20 MR. VERHOEVEN: I REPRESENT MOTOROLA.

16:33:46 21 THE COURT: I SEE. BUT I WOULD SUSPECT
16:33:47 22 THAT DOESN'T THE PROTECTIVE ORDER SAY THAT YOU CAN
16:33:49 23 ONLY USE IT FOR THAT LAWSUIT?

16:33:51 24 MR. VERHOEVEN: NO. THIS IS -- SEE, WHAT
16:33:52 25 THE PROCESS IS, IS THAT IT'S CONFIDENTIAL NOW AND

16:33:55 1 THEN WE HAVE TO GO THROUGH AND AGREE WITH APPLE ON
16:33:57 2 WHAT IS REALLY CONFIDENTIAL AND WHAT IS NOT AND
16:33:59 3 THEN THE NON-CONFIDENTIAL VERSION IS PUBLISHED.

16:34:02 4 AND THESE ARE -- THOSE WOULD BE CLAIM
16:34:04 5 CONSTRUCTIONS SO THAT THEY WOULD END UP BEING
16:34:06 6 VIRTUALLY I'M CERTAIN NON-CONFIDENTIAL. AND I'M
16:34:10 7 NOT SURE --

16:34:11 8 THE COURT: AND WHEN IS IT GOING TO BE
16:34:14 9 PUBLISHED?

16:34:15 10 MR. VERHOEVEN: IT DEPENDS ON HOW LONG IT
16:34:16 11 TAKES US TO GET BACK AND FORTH. EVEN IF WE TRIED
16:34:19 12 TO I'M NOT SURE WE COULD GET IT.

16:34:21 13 MR. MCELHINNY: I.T.C. PROTECTIVE ORDERS,
16:34:24 14 JUST SO THAT IT'S CLEAR, ARE PROTECTIVE TO
16:34:27 15 ATTORNEYS.

16:34:27 16 SO NOBODY FROM MORRISON & FOERSTER IS
16:34:30 17 INVOLVED IN THAT CASE SO WE DON'T HAVE IT AND CAN'T
16:34:32 18 GET IT, FRANKLY, UNTIL IT'S MADE PUBLIC.

16:34:35 19 MR. VERHOEVEN: OKAY.

16:34:35 20 THE COURT: I'M OKAY WITHOUT THAT.
16:34:39 21 ANYTHING ELSE FOR FRIDAY?

16:34:41 22 MR. VERHOEVEN: NO. OKAY.

16:34:42 23 THE COURT: OKAY. THANK YOU. THANK YOU
16:34:44 24 VERY MUCH.

25 (WHEREUPON, THE PROCEEDINGS IN THIS

1 MATTER WERE CONCLUDED.)

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CERTIFICATE OF REPORTER

I, THE UNDERSIGNED OFFICIAL COURT
REPORTER OF THE UNITED STATES DISTRICT COURT FOR
THE NORTHERN DISTRICT OF CALIFORNIA, 280 SOUTH
FIRST STREET, SAN JOSE, CALIFORNIA, DO HEREBY
CERTIFY:

THAT THE FOREGOING TRANSCRIPT,
CERTIFICATE INCLUSIVE, CONSTITUTES A TRUE, FULL AND
CORRECT TRANSCRIPT OF MY SHORTHAND NOTES TAKEN AS
SUCH OFFICIAL COURT REPORTER OF THE PROCEEDINGS
HEREINBEFORE ENTITLED AND REDUCED BY COMPUTER-AIDED
TRANSCRIPTION TO THE BEST OF MY ABILITY.

/s/

IRENE RODRIGUEZ, CSR, CRR
CERTIFICATE NUMBER 8074

DATED: JANUARY 19, 2012