UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, PLAINTIFF, V. MICROSOFT CORPORATION, DEFENDANT.	C.A. NO. 98-1232
STATE OF NEW YORK, ET AL., PLAINTIFFS, V. MICROSOFT CORPORATION, DEFENDANT.	C.A. NO. 98-1223
MICROSOFT CORPORATION, COUNTERCLAIM-PLAINTIFF, V. DENNIS C. VACCO, ET AL., COUNTERCLAIM-DEFENDANTS.	JANUARY 13, 1999 WASHINGTON, D.C.

VOLUME 37-B

TRANSCRIBED DEPOSITION EXCERPTS

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PENGAD-Bayonne, N.J.
GOVERNMENT EXHIBIT
1464

1 (DEPOSITION EXCERPTS OF JOE BELFIORE.)

2 Q. LET ME ASK YOU--GO BACK--AND AGAIN, AS

3 I GO THROUGH SOME OF THESE, IF I DON'T

4 CHARACTERIZE THEM EXACTLY RIGHT OR YOU SORT OF

5 NEED TO FIX MY DESCRIPTION, PLEASE DO THAT

6 BECAUSE WE NEED TO HAVE A GOOD JOINT

7 UNDERSTANDING OF THEM BEFORE WE GO ON.

8 THE ONE I MENTIONED RIGHT BEFORE WE

9 TOOK THE BREAK WAS THE CHANGE TO THE WEB VIEW

10 THAT WOULD GIVE YOU MORE INFORMATION, MORE

11 ATTRACTIVE OR MORE DETAILED INFORMATION ABOUT

12 FILES OR FOLDERS AS YOU OPEN THEM.

13 DO YOU RECALL THAT?

14 A. YES.

15 Q. AND I BELIEVE YOU SAID THAT WAS NOT

16 SOMETHING THAT YOU ANTICIPATED WOULD BE IN THE

17 IE 5; IS THAT RIGHT?

18 A. YES.

19 Q. DO YOU EXPECT THAT THAT PARTICULAR

20 IMPROVEMENT WILL BE MADE AVAILABLE SEPARATE FROM

21 WINDOWS 98 IN ANY WAY?

22 A. NO.

23 Q. AND FOR THAT--LET ME TRY AGAIN. LET ME

24 SEE IF THIS WORKS.

25 WHY ISN'T THAT SOMETHING THAT YOU WOULD

1 WANT TO MAKE AVAILABLE TO USERS THROUGH, YOU
2 KNOW, IE 4.0 OR SOMETHING, FOR EXAMPLE, OR
3 THROUGH IE 5 SEPARATE FROM WINDOWS 98?
4 A. OKAY. A PIECE OF CUSTOMER FEEDBACK
5 THAT WE'VE HEARD ABOUT DOWNLOADING IE COMPONENTS
6 FROM THE WEB IS THAT DOWNLOADING IE COMPONENTS
7 TODAY TAKES TOO LONG, IT'S TOO BIG, THERE'S TOO
8 MUCH STUFF.
9 SO ONE OF THE PRINCIPLES, TRYING TO
10 MAKE IE 5 MEET CUSTOMER EXPECTATIONS AND BE
11 EASIER FOR CUSTOMERS TO INSTALL, IS TO MAKE IT
12 SMALLER AND INCLUDE LESS STUFF.
13 SO ONE REASON TO NOT INCLUDE MANY OF
14 THESE THINGS IS THAT IT WILL MAKE IE BIGGER FOR
15 THE DOWNLOAD.
16 Q. BEFORE WE GO INTO THAT, TELL ME A
17 LITTLE BIT MORE ABOUT THE FEEDBACK THAT HAS
18 SUGGESTED THAT DOWNLOADING IE IS--IT'S TOO BIG
19 AND DOWNLOADING IS NOT A GOOD THING.
20 A. THERE'S TONS OF FEEDBACK THAT SUGGEST
21 THAT DOWNLOADING IE TAKES TOO LONG, IS TOO HARD.
22 YOU CAN GO READ PRETTY MUCH ANY PRESS REVIEWS,
23 JUST GO TALK TO ANY PEOPLE OR EXPERIENCE IT
24 YOURSELF AND YOU'LL FIND THAT THE NUMBER OF HOURS
25 THAT IT TAKES TO DOWNLOAD THESE COMPONENTS OVER

1 THE PHONE LINE IS INCREDIBLY DISCOURAGING TO
2 PEOPLE, OFTEN FAILS, AND THE RESULT IS THAT
3 PEOPLE DON'T GET AN IMPROVED USER EXPERIENCE AT
4 ALL.
5 SO, IN ORDER TO DELIVER BENEFIT FOR
6 CUSTOMERS, WE HAVE TO MAKE IT EASIER.
7 Q. IS THAT PHENOMENON YOU'VE DESCRIBED,
8 JUST HOW DIFFICULT AND DISCOURAGING THE DOWNLOAD
9 IS FROM WHAT YOU HAVE BOTH READ AND HEAR FROM
10 FEEDBACK DIRECTLY, IS THAT SOMETHING THAT APPLIES
11 TO THE LATEST VERSION IN NETSCAPE'S COMMUNICATOR
12 AS WELL AS TO IE?
13 A. YES.
14 Q. IT'S PRETTY BIG, TOO, I TAKE IT?
15 A. YES.
16 Q. IN TERMS OF THE FEEDBACK OR THE
17 INFORMATION BEHIND WHAT YOU'VE JUST DESCRIBED,
18 ARE YOU AWARE OF ANY SORT OF NUMBERS THAT REFLECT
19 WHAT YOU'VE TALKED ABOUT? FOR EXAMPLE, THE
20 PERCENTAGES OF PEOPLE WHO TRIED TO DOWNLOAD WHERE
21 IT FLAT-OUT FAILED, FOR EXAMPLE, OR ANYTHING LIKE
22 THAT?
23 A. NO.
24 Q. HAS THERE BEEN ANY THOUGHT OR
25 CONSIDERATION TO MAKING--WE'LL DO IT ONE BY ONE

1 FOR NOW--THIS FEATURE WE WERE JUST TALKING ABOUT,
2 THE MORE ATTRACTIVE DETAILED WEB VIEW FOR
3 FOLDERS, AVAILABLE IN IE 5 OR FUTURE VERSIONS OF
4 IE IN FORMS OTHER THAN DOWNLOAD; FOR EXAMPLE,
5 WHEN IT'S DELIVERED--WHEN IE IS REDISTRIBUTED BY
6 AN INTERNET SERVICE PROVIDER OR IF IT'S
7 DISTRIBUTED AT RETAIL ON A DISK OR SOME
8 NONDOWNLOAD METHOD THAT WOULDN'T HAVE THIS
9 PROBLEM?
10 A. NO.
11 MR. AESCHBACHER: OBJECTION. ASKED AND
12 ANSWERED.
13 BY MR. MALONE:
14 Q. AND AGAIN, WHY WOULDN'T MAKING IT
15 AVAILABLE IN THAT WAY WHERE YOU WOULDN'T HAVE
16 THIS DOWNLOAD ISSUE, WHY WOULDN'T THAT BE
17 SOMETHING YOU WOULD WANT TO OFFER?
18 A. WE--IT WOULD MAKE SENSE FOR US TO
19 DEFINE A SET OF COMPONENTS THAT WE WOULD CALL IE
20 IN A CONSISTENT WAY SO PEOPLE WOULD KNOW WHAT
21 THEY WERE GOING TO GET REGARDLESS OF THE MEANS IN
22 WHICH IT WAS DISTRIBUTED.
23 Q. HAS THAT BEEN THE CASE UP TO NOW WITH
24 IE 3 AND IE 4, FOR EXAMPLE?
25 A. YES.

1 MR. AESCHBACHER: OBJECTION. VAGUE AND
2 AMBIGUOUS.
3 BY MR. MALONE:
4 Q. AND WHEN IT'S BEEN THE CASE FOR IE 3
5 AND IE 4, CAN YOU EXPLAIN WHAT YOU MEAN IN
6 WHAT--AND AGAIN, I FORGET YOUR EXACT WORDS OF HOW
7 YOU DESCRIBED IT.
8 MR. AESCHBACHER: SAME OBJECTION.
9 THE WITNESS: IT'S JUST A SIMPLE
10 CONCEPT, THAT IF PEOPLE READ ABOUT SOMETHING
11 CALLED IE SET OF FEATURES OR FUNCTIONS AND THEY
12 GO TO A PARTICULAR DISTRIBUTION CHANNEL TO GET
13 IT, THEIR EXPERIENCE IN GETTING THOSE FEATURES
14 AND FUNCTIONS WOULD BE CONSISTENT; THAT IS, USER
15 BENEFITS, IT'S BETTER FOR THEM.
16 (EXCERPT.)
17 Q. LET ME GO BACK TO ANOTHER ONE OF THE
18 THINGS THAT YOU MENTIONED EARLIER THAT YOU OR
19 YOUR TEAM HAD CONTINUED TO WORK ON FOR WINDOWS 98
20 AFTER IE 4 SHIPPED.
21 AND THE SECOND ONE I WANT TO ASK YOU
22 ABOUT HAD TO DO WITH THE, I BELIEVE YOU
23 SAID--AGAIN, CORRECT ME IF I DON'T SAY IT THE WAY
24 YOU DID--THE ADDRESS BAR IN BOTH THE BROWSER
25 WINDOW AND IN THE TASK BAR ITSELF. IS THAT ONE

1 YOU MENTIONED?

2 A. YES.

3 Q. AND I THINK THERE YOU SAID THAT SOME

4 ADJUSTMENTS HAD BEEN MADE TO THE CODE THAT

5 AFFECTS HOW IT WORKS.

6 A. YES.

7 Q. IS THAT SOMETHING THAT WILL BE MADE

8 AVAILABLE IN ANY WAY, TO YOUR KNOWLEDGE,

9 SEPARATELY FROM WINDOWS 98?

10 A. THOSE ADJUSTMENTS WOULD PROBABLY BE A

11 PART OF IE 5.

12 Q. AND WHY WILL THOSE BE PART OF IE 5 AND

13 OTHER THINGS HERE WON'T?

14 A. IN THAT PARTICULAR CASE, THE CODE THAT

15 WE ADJUSTED IS PART OF THE--IS CLEARLY A PART OF

16 THE USER'S BROWSING EXPERIENCE. SO IT WOULD MAKE

17 SENSE FOR THOSE ENHANCEMENTS TO BE INCLUDED IN

18 IE 5.

19 Q. WHEN YOU MAKE THAT DISTINCTION, YOU

20 SAID THE CODE IS PART OF THE USER'S BROWSING

21 EXPERIENCE, WHAT GENERALLY DO YOU MEAN THERE?

22 A. GENERALLY, I MEAN THE CODE THAT

23 IMPLEMENTS THE WINDOW THROUGH WHICH A USER CAN

24 BROWSE THE WEB OR BROWSE THEIR HARD DISK OR

25 WHATEVER.

1 Q. I THINK THE NEXT THING YOU MENTIONED
2 WAS SOME CHANGES OR SOME FIXES TO THE WAY THE
3 START MENU OPERATES.
4 IS THAT SOMETHING THAT, TO YOUR
5 KNOWLEDGE, WILL BE MADE AVAILABLE SEPARATELY FROM
6 WINDOWS 98 AT ANY POINT?
7 A. PROBABLY NOT.
8 Q. AND WHY NOT IN THE SENSE OF WHAT'S
9 DIFFERENT?
10 A. GOING BACK TO THE TWO PRINCIPLES I
11 MENTIONED EARLIER. ONE IS TO KEEP THE SIZE OF A
12 FUTURE IE 5 SMALL, AND THE OTHER PRINCIPLE OF
13 CODE THAT DIRECTLY RELATES TO THE USER'S BROWSING
14 EXPERIENCE. THIS WOULD NOT BE INCLUDED IN
15 THOSE--IN THE CATEGORY OF THINGS THAT WOULD BE
16 LIKELY INCLUDED.
17 Q. OKAY. SO, THIS WOULD BOTH MAKE AN IE 5
18 BIGGER IF YOU INCLUDED IT IN THERE?
19 A. IT PROBABLY WOULD. BUT THAT WOULD
20 DEPEND ON HOW YOU IMPLEMENTED IT.
21 Q. AND ON THE SECOND THING, THIS ISN'T
22 PART OF--WELL, I DON'T WANT TO MISCHARACTERIZE.
23 HOW WOULD YOU DESCRIBE THE SECOND
24 FACTOR?
25 A. I'LL CONTRAST IT WITH THE ADDRESS BAR

1 EXAMPLE.

2 Q. YEAH.

3 A. WHERE THE ADDRESS BAR EXAMPLE IS A

4 PART--THE ADDRESS BAR CODE IS PART OF THE CODE

5 THAT WOULD BE REVISED TO REVISE THE GENERAL USER

6 EXPERIENCE OF BROWSING.

7 AND IN FACT, THE FUNCTIONALITY

8 ENHANCEMENT RELATES TO BROWSING.

9 IN THE START MENU CASE, THE CODE MAY OR

10 MAY NOT BE PART OF THAT; AND, IN FACT, IF YOU'RE

11 TRYING TO REDUCE THE AMOUNT OF CODE DOWNLOADED,

12 YOUR OBJECTIVE WOULD BE TO MAKE IT NOT BE, AND IT

13 DOES NOT RELATE TO THE SPECIFIC ACT OF USING A

14 WINDOW TO BROWSE AROUND YOUR HARD DISK OR BROWSE

15 THE WEB.

16 Q. I SEE. OKAY.

17 LET ME GO BACK FOR ONE SECOND. I DON'T

18 THINK I ASKED YOU. WHEN WE WERE TALKING ABOUT

19 THE CHANGES TO THE ADDRESS BARS, WHERE ARE THOSE

20 CHANGES MADE, OR WHAT--ARE THERE, AGAIN, SPECIFIC

21 DLL'S OR FILES THAT THOSE STEM FROM OR THE

22 CHANGES ARE MADE IN?

23 A. YES. I BELIEVE THEY'RE IN SHDOCVW,

24 ALTHOUGH I COULD BE INCORRECT. I'M FAIRLY SURE

25 I'M CORRECT.

1 (EXCERPT.)

2 Q. YOU HAD ALSO DESCRIBED SOMETHING YOU

3 REFERRED TO A COUPLE OF TIMES, THE "MY DOCUMENTS"

4 FOLDER AND CHANGES IN WINDOWS 98 WHERE IT

5 ACTUALLY CREATES THE FOLDER AND, I THINK YOU

6 SAID, MAKES IT EASIER TO GET TO.

7 AND YOU DESCRIBED SOME ADDITIONAL

8 ACCESS POINTS, I GUESS, IF WE GET INTO THE "MY

9 DOCUMENTS" FOLDER; IS THAT RIGHT?

10 A. UH-HUH.

11 Q. I'M SORRY, COULD YOU JUST SAY YES JUST

12 FOR THE COURT REPORTER.

13 A. I'M SORRY. YES.

14 Q. THAT'S ALL RIGHT.

15 MR. AESCHBACHER: LET THE RECORD SHOW

16 MR. MALONE'S DIRECTING THE WITNESS TO SAY "YES."

17 BY MR. MALONE:

18 Q. IN THE CHANGES YOU DESCRIBED IN THE "MY

19 DOCUMENTS" FOLDER, ARE THOSE CHANGES YOU

20 ANTICIPATE WILL BE MADE AVAILABLE SEPARATELY FROM

21 WINDOWS 98 IN THE FUTURE?

22 A. IN GENERAL, NO, ALTHOUGH SOME OF THE

23 SPECIFIC ACCESS POINTS MAY RELATE TO BROWSING,

24 AND THOSE WE MAY.

25 Q. AND CAN YOU TELL ME WHEN--WHICH

1 SPECIFIC ONES OR WHICH SPECIFIC ACCESS POINTS MAY
2 RELATE TO BROWSING.
3 MR. AESCHBACHER: CALLS FOR
4 SPECULATION. VAGUE AND AMBIGUOUS.
5 THE WITNESS: ACCESS VIA THE START
6 MENU. AND IF WE WERE TO DECIDE TO INCLUDE DIRECT
7 ACCESS, VIA THE BROWSING WINDOW.
8 BY MR. MALONE:
9 Q. AND IN THE FIRST ONE, ACCESS VIA THE
10 START MENU, WHY OR IN WHAT SENSE MIGHT THAT
11 RELATE TO BROWSING?
12 MR. AESCHBACHER: VAGUE AND AMBIGUOUS.
13 GO AHEAD.
14 THE WITNESS: IN THIS CASE, IT
15 IS--WELL, IT'S A MEANS FOR THE USER TO GET TO A
16 PARTICULAR SET OF STUFF. AND TO THE EXTENT THAT
17 IT CAN BE DONE WITHOUT IMPLYING A CONCEPTUAL COST
18 OR A DOWNLOAD SIZE, COST MIGHT BE SOMETHING THAT
19 WE WOULD TRY TO DO. LIKE IN THAT PARTICULAR
20 EXAMPLE, IT'S VERY LIGHT WEIGHT AND IT JUST MIGHT
21 FIT.
22 AGAIN, I SHOULD POINT OUT THAT THESE
23 DECISIONS HAVEN'T BEEN MADE YET, SO I'M
24 SPECULATING.
25 BY MR. MALONE:

1 Q. AND WHEN YOU DESCRIBED WHEN I'VE ASKED
2 YOU, YOU KNOW, DO YOU EXPECT THIS WOULD OR
3 WOULDN'T BE IN, YOU'VE BEEN BASING THAT ON YOUR
4 CURRENT UNDERSTANDING OF WHAT THE PLANS ARE FOR
5 IE 5?
6 A. YES.
7 MR. AESCHBACHER: OBJECTION. MISSTATES
8 HIS TESTIMONY TO THE EXTENT THAT THERE HAVEN'T
9 BEEN PLANS MADE TO SOME OF THESE THINGS.
10 BY MR. MALONE:
11 Q. ARE THERE SPECIFIC DLL'S OR FILES THAT
12 CREATE OR GIVE RISE TO THE CHANGES YOU'VE
13 DESCRIBED IN THE "MY DOCUMENTS" FOLDER AND ACCESS
14 TO IT?
15 A. THERE ARE, AND I DON'T KNOW WHAT THEY
16 ARE.
17 Q. DO YOU KNOW WHAT ANY OF THEM ARE?
18 A. WELL, THIS FEATURE COULD HAVE BEEN
19 IMPLEMENTED A NUMBER OF WAYS, AND I DON'T KNOW
20 WHICH WAY WAS USED, SO I DON'T WANT TO SPECULATE
21 ABOUT WHICH DLL'S MAY HAVE BEEN IMPACTED.
22 (EXCERPT.)
23 Q. ARE YOU FAMILIAR, GENERALLY, WITH A
24 FEATURE OR A UTILITY IN WINDOWS 95 AND WINDOWS 98
25 CALLED THE ADD/REMOVE PROGRAMS UTILITY?

1 A. YES.

2 Q. IS THAT SOMETHING THAT IS IN BOTH

3 WINDOWS 95 AND WINDOWS 98?

4 A. YES.

5 Q. CAN YOU TELL ME GENERALLY WHAT THE

6 PURPOSE OF THAT UTILITY IS, AS YOU UNDERSTAND IT.

7 A. SURE.

8 THAT IS A PIECE OF USER INTERFACE THAT

9 PROVIDES A SINGLE COMMONPLACE FOR A USER TO GO TO

10 ADD APPLICATIONS TO THEIR PC OR TO REMOVE

11 APPLICATIONS FROM THEIR PC.

12 I SHOULD ADD, IT'S ACTUALLY BROADER

13 THAN THAT BECAUSE IT ALSO PROVIDES A MECHANISM

14 FOR USERS TO INSTALL OR UNINSTALL COMPONENTS OF

15 WINDOWS WHICH, IN MANY CASES, CONCEPTUAL USERS

16 THEY WANT TO GO TO ONE PLACE AND THEY LOOK AROUND

17 AND THEY FIND THE THING BY NAME THAT THEY'RE

18 LOOKING FOR, AND THEN THEY'LL SUCCEED AT THE

19 TASK.

20 Q. SO, IT DOESN'T SO MUCH MATTER TO THEM

21 HOW THE THING IS CHARACTERIZED?

22 A. AS LONG AS THEY CAN GO AND FIND THE

23 THING THAT THEY WANT TO ADD OR REMOVE, THEN THEY

24 SUCCEEDED IN THE TASK AND OUR USER INTERFACE IS

25 WORKING.

1 Q. AND GENERALLY, WHEN YOU TALK ABOUT A
2 USER WANTING TO ADD OR REMOVE THINGS, WHAT DO YOU
3 MEAN BY ADD OR REMOVE?
4 A. GENERALLY, I MEAN THAT A USER IS MAKING
5 A TRADEOFF OF WHETHER SOME SET OF FUNCTIONALITY
6 IS FUNCTIONALITY THEY WANT TO HAVE STORED ON
7 THEIR PC HARD DISK OR NOT. SO, IN SOME EXAMPLE I
8 MIGHT GO HERE BECAUSE I HAVE A FLOPPY DISK THAT
9 WILL ENABLE ME TO INSTALL AN APPLICATION LIKE
10 TURBOTAX OR QUICKEN OR SOMETHING. AND I GO THERE
11 BECAUSE IT SAYS "ADD," AND I STICK THE FLOPPY
12 DISK IN, AND THEN IT WILL RUN THE APPLICATION
13 SETUP PROGRAM AND ADD THAT CODE TO MY HARD DISK.
14 SIMILARLY, IF I KNOW THAT MY HARD DISK
15 IS FULL AND I KNOW THAT THERE'S A BUNCH OF
16 PROGRAM CODE THAT I DON'T USE, FUNCTIONALITY IS
17 NOT USEFUL TO ME, THEN I CAN GO TO THIS PLACE AND
18 LOOK FOR THINGS THAT I DON'T USE IN ORDER TO FREE
19 UP SPACE ON MY HARD DISK.
20 Q. IN THE CASE OF INTERNET EXPLORER 4 IN
21 WINDOWS 95, IS IT THE CASE THAT IF A USER
22 INSTALLED IE 4 FROM A DISK OR DOWNLOADED IT IN
23 SOME WAY, THAT AN ENTRY WOULD APPEAR--ONE OR MORE
24 ENTRIES WOULD APPEAR IN THE ADD/REMOVE UTILITY
25 FOR THE INTERNET EXPLORER?

1 A. YES.

2 Q. WHAT ENTRIES, TO YOUR KNOWLEDGE, WOULD

3 APPEAR IN THE ADD/REMOVE UTILITY?

4 A. I BELIEVE--I BELIEVE THERE ARE TWO, ONE

5 OF WHICH IS INTERNET EXPLORER 4.0 AND ONE WHICH

6 IS INTERNET EXPLORER 4.0 SETUP FILES, BUT WE MAY

7 HAVE GOTTEN RID OF THE SECOND ONE.

8 Q. DO YOU KNOW, GENERALLY, WAS IT THE CASE

9 THAT--OKAY.

10 AND BEYOND SORT OF WHAT ENTRIES APPEAR

11 WHEN A USER INSTALLED IE 4 THE WAY YOU'VE JUST

12 DESCRIBED, WOULD IT THEN BE POSSIBLE USING THE

13 ADD/REMOVE UTILITY FOR THE USER TO EITHER DELETE

14 IE 4 IN ITS ENTIRETY OR TO DELETE ONLY A PORTION

15 OF IT?

16 A. YES.

17 Q. AND CAN YOU EXPLAIN THE DIFFERENCE

18 BETWEEN THOSE TWO OPTIONS.

19 A. SURE. THERE ARE A LOT OF

20 DIFFERENT--THERE ARE A LOT OF DIFFERENT POSSIBLE

21 CONFIGURATIONS, AND WE TRIED TO LOCALIZE THE USER

22 INTERFACE FOR PEOPLE TO MOVE FROM ONE

23 CONFIGURATION TO ANOTHER. SO I'LL GIVE YOU SOME

24 EXAMPLES.

25 Q. UH-HUH, PLEASE.

1 A. ONE EXAMPLE WOULD BE IF I RAN THROUGH
2 THE IE INSTALLATION PROCESS AND THE FIRST TIME I
3 RAN THROUGH I CHOSE NOT TO INSTALL THE WINDOWS
4 DESKTOP UPDATE THAT WE WERE TALKING ABOUT BEFORE.
5 THEN I'M USING IE 4 AND I'M HAPPY AND THINGS ARE
6 GOING FINE, AND I SEE SOMEBODY ELSE'S PC THAT HAS
7 IT AND I THINK IT'S COOL, SO I DECIDE I WANT TO.
8 WELL, NOW I GO TO THE ADD/REMOVE PLACE
9 AND CLICK ON A BUTTON, AND I HAVE AN OPTION TO
10 ADD THAT PART TO IE.
11 THE REVERSE IS ALSO TRUE. IF I HAVE
12 INSTALLED THAT SET OF COMPONENTS, THEN I HAVE A
13 PLACE THAT I CAN GO TO. IF MAYBE MY PC'S NOT
14 FAST ENOUGH OR I DON'T HAVE ENOUGH MEMORY AND THE
15 BENEFIT IS NOT WORTH THE COST TO ME, I CAN REMOVE
16 IT.
17 Q. WHEN YOU SAY "IT," REMOVE THE ACTIVE
18 DESKTOP PORTION OR THE ENTIRE THING?
19 A. I CAN REMOVE THE COMPONENTS THAT
20 IMPLEMENT JUST--THE SAME COMPONENTS THAT I WOULD
21 HAVE CHOSEN TO INSTALL WHERE I HAVE TO RUN THE
22 INSTALL THE FIRST TIME.
23 Q. FOR THE ACTIVE DESKTOP?
24 A. WELL, THAT WHOLE SET.
25 Q. SO YOU HAVE THE SAME CHOICES?

1 A. SAME GRANULARITY.

2 FURTHERMORE, IF I HAD--LET'S TAKE

3 ANOTHER EXAMPLE. LET'S SAY THAT I HAVE BEEN

4 USING SOME APPLICATION THAT USES THE IE SERVICES

5 AND BEFORE I USED--BEFORE I EVER INSTALLED IE 4.

6 SO I'LL USE QUICKEN 98 AS AN EXAMPLE OF AN

7 APPLICATION, ALTHOUGH I DON'T THINK THE SCENARIO

8 I'M GOING TO CONSTRUCT WOULD ACTUALLY HAPPEN IN

9 QUICKEN 98. I'M USING AN APPLICATION THAT USES

10 THESE SERVICES, AND THEN I INSTALL THE IE 4 SET

11 OF SERVICES.

12 NOW, IT MAY BE THE CASE THAT SOME

13 APPLICATION VENDOR HAS USED THE SERVICES IN SUCH

14 A WAY THAT THE CHANGE TO IE 4 MAKES IT

15 INCOMPATIBLE OR NOT WORK CORRECTLY OR NOT BE AS

16 GOOD AN EXPERIENCE FOR ME. THAT SHOULDN'T

17 HAPPEN, BUT IT'S POSSIBLE THAT IT COULD HAPPEN.

18 IN THAT SITUATION, I HAVE A PLACE TO GO

19 SO I CAN REVERT MY SYSTEM BACK TO THE EARLIER

20 LEVEL OF FUNCTIONALITY AND GUARANTEE THAT MY

21 APPLICATION EXPERIENCE WILL WORK WELL.

22 THAT'S JUST--THAT'S A SET OF EXAMPLES

23 OF WHY THAT FUNCTIONALITY EXISTS AND WHAT IT IS

24 INTENDED TO SOLVE.

25 (EXCERPT.)

1 Q. IN WINDOWS 98, AS IT CURRENTLY EXISTS
2 IN RELEASE CANDIDATE ZERO, IS THERE ANY ABILITY
3 OF A USER TO UNINSTALL ALL OR PART OF INTERNET
4 EXPLORER USING THE ADD/REMOVE UTILITY?
5 A. I DON'T KNOW.
6 Q. DO YOU HAVE ANY INFORMATION ABOUT
7 WHETHER OR NOT THAT'S--THAT IS POSSIBLE?
8 A. I KNOW THAT SOME TIME AGO--
9 MR. AESCHBACHER: OBJECTION. VAGUE AND
10 AMBIGUOUS. CALLS FOR SPECULATION.
11 YOU CAN ANSWER.
12 THE WITNESS: I KNOW THAT SOME TIME AGO
13 IT WAS NOT POSSIBLE, AND I DON'T KNOW WHETHER
14 THAT STATE HAS CHANGED OR NOT.
15 BY MR. MALONE:
16 Q. AT WHAT POINT IN TIME ARE YOU REFERRING
17 TO WHEN IT WAS NOT POSSIBLE, ROUGHLY?
18 A. A MONTH OR TWO AGO.
19 Q. AND HOW DO YOU KNOW THAT?
20 A. I--IN TYPICAL FASHION. I GOT E-MAIL
21 FROM SOME RANDOM PERSON WITH A BUNCH OF COMMENTS
22 ABOUT WINDOWS 98 USER INTERFACE. AND ONE OF THE
23 COMMENTS RELATED TO THE FACT THAT THERE WASN'T AN
24 ENTRY IN THERE.
25 Q. WHEN YOU SAY A "RANDOM PERSON," YOU

1 MEAN SOMEONE WITHIN MICROSOFT?

2 A. NO. WHAT I MEANT WAS A PERSON THAT I

3 HAVE NO BUSINESS RELATIONSHIP WITH.

4 Q. A MEMBER OF THE PUBLIC AT LARGE?

5 A. RIGHT.

6 Q. AND I'M SORRY.

7 A. THAT'S FINE.

8 Q. TELL ME WHAT THE SUBSTANCE OF THE

9 E-MAIL WAS, AGAIN.

10 A. IT WAS A WHOLE SET OF COMMENTS ABOUT

11 THE WINDOWS 95 USER INTERFACE. AND ONE OF THE

12 COMMENTS ADDRESSED THE FACT THAT THERE WAS NO

13 ENTRY IN THE ADD/REMOVE UTILITY.

14 Q. YOU SAID WINDOWS 95.

15 A. I'M SORRY. I MEANT WINDOWS 98.

16 Q. WHAT SPECIFICALLY--WHAT DID THESE

17 COMMENTS SAY WAS NOT IN THE ADD/REMOVE UTILITY?

18 A. A MEANS OF REMOVING THE IE 4 LEVEL OF

19 COMPONENTS INCLUDING THE WINDOWS DESKTOP UPDATE.

20 Q. AND WHAT, IF ANYTHING, DID YOU DO BASED

21 ON OR IN RESPONSE TO THE E-MAIL?

22 A. I REPLIED TO THE PERSON AND EXPLAINED

23 TO HIM A WHOLE BUNCH OF THINGS ABOUT A WHOLE

24 BUNCH OF HIS COMMENTS.

25 AND I FORWARDED MAIL ON TO SOME PEOPLE

1 WITH THE LIST OF HIS COMMENTS IN CASE OTHER
2 PEOPLE WANTED TO ADDRESS THEM.
3 Q. DID YOUR REPLY DEAL WITH OR SAY
4 ANYTHING ABOUT THE ADD/REMOVE ISSUE THAT WE JUST
5 TALKED ABOUT?
6 A. I THINK THE E-MAIL THAT I CREATED DID
7 ADDRESS THAT. AND I CAN'T REMEMBER WHETHER I
8 SENT A SPECIFIC MESSAGE ABOUT IT OR WHETHER IT
9 WAS JUST PART OF A BROAD SET OF HERE'S A BUNCH OF
10 COMMENTS.
11 Q. AND IN WHATEVER FORM IT WAS, DO YOU
12 REMEMBER THE SUBSTANCE OF WHAT YOU SAID,
13 SUBSTANCE OF YOUR REPLY ABOUT THIS ADD/REMOVE
14 ISSUE?
15 MR. AESCHBACHER: REPLY TO THE PERSON
16 WHO SENT HIM THE E-MAIL?
17 MR. MALONE: YES.
18 THE WITNESS: OH, TO THE PERSON?
19 MR. MALONE: YES. MAYBE WE SHOULD GO
20 BACK TO THE QUESTION. THAT'S WHERE I WAS FOCUSED
21 FOR NOW.
22 BY MR. MALONE:
23 Q. IN TERMS OF YOUR REPLY TO THIS PERSON,
24 DID YOU--LET ME JUST REPEAT IT, MAKE SURE WE'RE
25 ON THE SAME WAVELENGTH HERE.

1 IN THAT REPLY TO THE ACTUAL SENDER OF
2 THE E-MAIL, DID YOU SAY ANYTHING ABOUT THE PART
3 OF HIS COMMENTS THAT RELATED TO THE ADD/REMOVE
4 UTILITY?
5 A. I DON'T REMEMBER WHETHER I DID OR NOT.
6 Q. AND THEN YOU ALSO SAID THAT YOU
7 FORWARDED SOME PART OR ALL OF HIS MESSAGE TO
8 OTHERS.
9 DID THAT PROCESS ADDRESS, AT LEAST IN
10 PART, HIS COMMENTS--THIS PERSON'S COMMENTS ABOUT
11 THE ADD/REMOVE UTILITY?
12 A. I DON'T UNDERSTAND WHAT YOU MEAN BY
13 "ADDRESS" HIS COMMENTS.
14 Q. DID YOU MENTION THIS WHEN YOU PASSED ON
15 HIS COMMENTS OR DID WHATEVER YOU DID TO OTHERS
16 WITHIN MICROSOFT? DID YOU SAY ANYTHING ABOUT THE
17 ADD/REMOVE?
18 A. I THINK I DID. ALTHOUGH I DON'T
19 REMEMBER SPECIFICALLY WHETHER I DID OR DID NOT.
20 Q. DO YOU REMEMBER WHO OR ROUGHLY WHO YOU
21 SENT WHATEVER YOUR--WHATEVER IT WAS THAT YOU SENT
22 THIS FORWARDING TO?
23 A. PROBABLY TO BILL VEGHTE AND PEOPLE IN
24 MY TEAM, POSSIBLY JOHN GRAY.
25 Q. WHO IS MR. VEGHTE?

1 A. BILL VEGHTE IS THE MANAGER OF THE
2 OVERALL WINDOWS 98 PRODUCT IN RELEASING THAT
3 VERSION OF THE OPERATING SYSTEM.
4 Q. AND MR. GRAY?
5 A. JOHN GRAY IS A PROGRAM MANAGER ON
6 BILL'S TEAM.
7 Q. IS HE RESPONSIBLE FOR ANY PARTICULAR
8 AREA?
9 A. I DON'T KNOW WHAT HIS EXACT AREA OF
10 RESPONSIBILITY IS, BUT I KNOW HIM FROM
11 WINDOWS 95, AND I KNOW THAT HE KNOWS A LOT OF
12 THINGS ABOUT LOTS OF STUFF.
13 Q. SOUNDS LIKE A GOOD PERSON TO SEND
14 THINGS TO.
15 CAN YOU RECALL ANYTHING EVEN GENERALLY
16 ABOUT WHAT, IF ANYTHING, YOU MAY HAVE SAID TO
17 MR. VEGHTE OR MR. GRAY ABOUT THE COMMENT RELATING
18 TO THE ADD/REMOVE UTILITY ISSUE?
19 A. THE THING THAT I REMEMBER IS THAT I MAY
20 HAVE UNDERSCORED THAT THIS SHOULD BE SOMETHING
21 THAT THOSE GUYS SHOULD TAKE A LOOK AT TO DECIDE
22 WHETHER IT MADE SENSE FOR THEM TO DO IT OR NOT.
23 Q. DID YOU--AT THAT POINT, DID YOU DO
24 ANYTHING TO SEE WHETHER THIS PERSON'S COMMENT WAS
25 ACCURATE?

1 (BRIEF INTERRUPTION.)
2 (QUESTION READ.)
3 THE WITNESS: I'M PRETTY SURE I LOOKED.
4 BY MR. MALONE:
5 Q. IN THE CURRENT--
6 A. WHATEVER CURRENT BUILD THAT I HAD AT
7 THE TIME.
8 Q. DO YOU REMEMBER GENERALLY WHAT YOU
9 FOUND WHEN YOU LOOKED?
10 A. I'M PRETTY SURE THAT I SAW THAT HE WAS
11 CORRECT OR I WOULDN'T HAVE PASSED IT ON.
12 AND THIS WHOLE CONVERSATION CAME UP
13 BECAUSE I THOUGHT THAT I HAD LOOKED A WHILE AGO
14 AND SEEN THAT IT WASN'T THERE, AND THIS WAS THE
15 COMMENT THAT PROMPTED ME TO LOOK.
16 Q. AND WHEN YOU SAID A MOMENT AGO THAT
17 YOU--GENERALLY WHAT YOU RECALL THAT YOU MAY HAVE
18 SAID TO MR. VEGHTE OR MR. GRAY, IF I HEARD YOU
19 RIGHT, YOU SAID SOMETHING YOU THOUGHT YOU
20 UNDERSCORED MAYBE THIS WAS SOMETHING THEY SHOULD
21 TAKE A LOOK AT; IS THAT RIGHT?
22 A. YES.
23 Q. DO YOU REMEMBER--DID YOU SAY ANYTHING
24 ELSE MORE ABOUT THAT?
25 A. I DON'T REMEMBER.

1 Q. WHY WAS IT YOUR THOUGHT THAT THIS WAS
2 SOMETHING THAT MR. VEGHTE OR MR. GRAY SHOULD TAKE
3 A LOOK AT, THIS ADD/REMOVE UTILITY ISSUE?
4 A. THE SCENARIO THAT I DESCRIBED BEFORE
5 WHERE THERE'S A POSSIBILITY THAT AN APPLICATION
6 MIGHT USE THE IE 3 LEVEL OF SERVICES IN SUCH A
7 WAY THAT MIGHT MAKE IT INCOMPATIBLE WITH THE IE 4
8 LEVEL--IT'S UNLIKELY, BUT IT'S POSSIBLE--THEN IT
9 COULD BE A CUSTOMER SATISFACTION ISSUE FOR
10 WINDOWS 98 TO GUARANTEE THAT CUSTOMERS HAVE A WAY
11 TO RUN APPLICATIONS COMPATIBLY, PERIOD.
12 Q. SO, IT WAS YOUR THOUGHT THAT SIMILAR TO
13 THE WAY IT WORKED IN WINDOWS 95 IT MIGHT BE
14 USEFUL IN THIS SCENARIO FOR CUSTOMERS TO BE ABLE
15 TO TAKE STEPS USING THE ADD/REMOVE SO THAT THIS
16 APPLICATION WOULD BE COMPATIBLE?
17 A. IT'S WORTH THINKING ABOUT WHETHER
18 THERE'S A CUSTOMER ISSUE HERE THAT NEEDS TO BE
19 SOLVED.
20 Q. DID YOU GET ANY KIND OF RESPONSE FROM
21 MR. VEGHTE OR MR. GRAY?
22 A. I DON'T REMEMBER.
23 Q. DO YOU REMEMBER EVEN GENERALLY HEARING
24 ANYTHING MORE ABOUT THIS ISSUE FROM EITHER OF
25 THEM?

1 A. NO.

2 Q. HAVE YOU SPOKEN ABOUT IT OR

3 COMMUNICATED ABOUT IT TO ANYBODY ELSE BESIDES

4 THEM SINCE THAT TIME?

5 A. I MIGHT HAVE SPOKEN TO RICK WADDELL

6 ABOUT THIS.

7 Q. CAN YOU SPELL HIS LAST NAME?

8 A. SURE. W-A-D-D-E-L-L.

9 Q. DO YOU--WHAT DO YOU RECALL THAT YOU

10 MIGHT HAVE DONE OR MIGHT HAVE SAID WITH

11 MR. WADDELL?

12 A. I MIGHT HAVE ASKED RICK WHETHER WE HAVE

13 TESTED THIS SCENARIO OR NOT.

14 Q. AND THAT WOULD BE THE SCENARIO YOU

15 DESCRIBED JUST A MOMENT AGO OF POTENTIALLY

16 INCOMPATIBLE APPLICATIONS OR--

17 A. POTENTIALLY INCOMPATIBLE APPLICATIONS

18 AND A REMEDY FOR A MEANS FOR FIXING THAT PROBLEM,

19 IF IT EXISTS.

20 Q. DO YOU HAVE ANY RECOLLECTION ABOUT WHAT

21 ELSE MAY HAVE TAKEN PLACE IN THIS COMMUNICATION?

22 ANY RESPONSE, FOR EXAMPLE?

23 A. NO. I DON'T EVEN REMEMBER WHAT HIS

24 ANSWER WAS.

25 (EXCERPT.)

1 Q. LET ME SHIFT GEARS A LITTLE BIT AND ASK
2 WHETHER YOU OR YOUR GROUP OR YOUR TEAM ARE
3 INVOLVED IN--HAVE BEEN INVOLVED IN USER INTERFACE
4 DESIGN OR DEVELOPMENT WORK FOR INTERNET EXPLORER.
5 ANY VERSION FOR PLATFORMS OTHER THAN WIN 32
6 PLATFORM.
7 A. NOT DIRECTLY, ALTHOUGH WE GOT ASKED
8 QUESTIONS SOMETIMES SO THE GROUPS WHO ARE DOING
9 THAT CAN TRY TO HAVE SIMILAR USER INTERFACES.
10 Q. IN GENERAL, WHAT GROUPS OTHER THAN
11 YOURSELF, WOULD BE DOING THAT USER INTERFACE
12 DESIGN FOR CROSS-PLATFORM VERSIONS?
13 A. IN THE MODEL I DESCRIBED WHERE THERE
14 ARE TEAMS OF PEOPLE WHO WORK ON FEATURES, THERE'S
15 A TEAM OF PEOPLE WHO WORK ON EACH
16 PLATFORM-SPECIFIC VERSION, AND THOSE PEOPLE WOULD
17 HAVE PEOPLE IN THEIR GROUP WHO WOULD WORRY ABOUT
18 USER INTERFACE DESIGN AND DEVELOPMENT.
19 Q. AND GENERALLY, WHAT KIND OF QUESTIONS
20 WOULD PEOPLE IN THOSE GROUPS BE ASKING YOU OR
21 YOUR GROUP?
22 A. GENERALLY, IT WOULD BE, WHAT ARE YOU
23 DOING?
24 Q. HOPEFULLY, NOT SAID QUITE THAT WAY.
25 A. WELL, NOT IN A SARCASTIC SENSE, BUT

1 LITERALLY WHAT IS THE DESIGN THAT YOU ARE USING
2 IN THE WINDOWS--WHATEVER THE WINDOWS VERSION IT
3 IS, AND THEN, GENERALLY BEYOND THAT, ASKING FOR
4 ADVICE. WELL, WHAT SHOULD WE DO, TYPICALLY.
5 Q. LET'S TAKE THIS ONE AT A TIME.
6 WHY IS IT THAT USER INTERFACE GROUPS OR
7 PEOPLE FOR OTHER PLATFORMS WOULD ASK YOU WHAT
8 YOU'RE DOING FOR THE IE INTERFACE FOR WINDOWS?
9 A. BECAUSE WE TEND TO HAVE THE EXPERTISE
10 AND HAVE BEEN WORKING ON THESE FEATURES AND HAVE
11 TALKED TO MORE CUSTOMERS, AND WE ARE THE--WE'RE
12 SORT OF THE POINT DRIVING THE EXPERIENCE FORWARD.
13 Q. IS PART OF THAT--I THINK YOU MENTIONED
14 SOMETHING ALONG THESE LINES A MINUTE AGO--IS PART
15 OF THE REASONS FOR THESE DISCUSSIONS SO THAT THE
16 USER INTERFACE FOR EACH DIFFERENT PLATFORM
17 VERSION OF INTERNET EXPLORER CAN BE AS SIMILAR OR
18 CONSISTENT AS POSSIBLE?
19 A. WHERE APPROPRIATE, YES.
20 Q. AND WHY IS THAT A GOAL? WHY IS THAT
21 SOMETHING THAT YOU TRY TO DO?
22 A. WELL, THE REASON THAT WE HAVE OTHER
23 PLATFORM VERSIONS OF INTERNET EXPLORER IN THE
24 FIRST PLACE IS SO THAT WHEN COMPANIES ARE MAKING
25 A DECISION ABOUT HOW THEY'RE GOING TO DEPLOY SOME

1 TYPE OF SOLUTION--FOR EXAMPLE, THEY'RE GOING TO
2 IMPLEMENT A 401(K) APPLICATION, AND THEY'RE GOING
3 TO DO IT IN A PARTICULAR WAY THAT WILL USE
4 INTERNET TECHNOLOGIES--THEY HAVE AN OPTION TO
5 CHOOSE INTERNET EXPLORER AS THEIR VIEWING
6 SOLUTION, AND THEY WON'T RULE IT OUT BECAUSE SOME
7 PEOPLE IN THEIR COMPANY HAVE NON-WINDOWS
8 OPERATING SYSTEMS THAT THEY USE ON THEIR
9 DESKTOPS.
10 SO IT FOLLOWS FROM THAT THAT
11 CONSISTENCY MAKES SENSE.
12 Q. AND WHY IS THAT? WHY DOES THAT FOLLOW?
13 A. IT MAKES IT EASIER FOR THE CORPORATION
14 TO EVALUATE THE OVERALL IMPACT OF RULING OUT IE
15 AS A SOLUTION. THEY CAN--IF THEY DO STUDIES ON
16 THE AMOUNT OF TRAINING REQUIRED FOR A USER TO USE
17 IT, THEN THAT STUDY WILL APPLY ACROSS THE BOARD.
18 AND IF THEY'RE GOING TO SET UP TRAINING PROGRAMS
19 FOR USERS, THEY CAN DO--THEY DON'T HAVE TO DO AS
20 MUCH WORK TO CREATE DIFFERENT TRAINING PROGRAMS.
21 IT'S JUST AN EFFICIENCY.
22 Q. ARE THERE ALSO REASONS OUTSIDE OF THIS
23 CORPORATE SETTING THAT YOU'VE JUST DESCRIBED WHY
24 MICROSOFT WANTS DIFFERENT PLATFORMS OF INTERNET
25 EXPLORER TO BE SIMILAR WHERE APPROPRIATE?

1 A. THERE ARE DIFFERENT SCENARIOS OF THE
2 SAME TYPE WHERE THE TYPE OF SCENARIO IS SOMEONE
3 IS GOING TO CREATE A SOLUTION AND DEPLOY IT AND
4 THEY WANT TO BE ABLE TO MAKE SURE THAT THEY CAN
5 DEPLOY IT TO THE BROADEST SET OF PEOPLE. AND A
6 CORPORATION IS A REALLY GOOD EXAMPLE OF THAT.
7 (EXCERPT.)
8 Q. HAVE YOU OR YOUR GROUP MADE CHANGES IN
9 THE PERFORMANCE OF ANY OF THE INTERFACE ITEMS FOR
10 WHICH YOU'RE RESPONSIBLE, EITHER IMPROVEMENTS OR
11 NONIMPROVEMENTS SINCE--FOR WINDOWS 98 SINCE IE 4
12 WAS SHIPPED?
13 A. YES.
14 Q. CAN YOU TELL ME WHAT THOSE HAVE BEEN.
15 A. I CAN'T TELL YOU THE SPECIFICS OF WHAT
16 THE CHANGES ARE, BUT I CAN GIVE YOU A SENSE FOR
17 THE KINDS OF THINGS AND THE MAGNITUDE. THERE
18 WERE ACTUALLY QUITE A FEW.
19 WHERE TO BEGIN?
20 WE DID A LOT OF WORK TO MAKE WEB VIEW
21 APPEAR FASTER SO THAT IF YOU WERE TO TAKE A
22 STOPWATCH AND TIME FROM THE MOMENT SOMEBODY
23 DOUBLE-CLICKS ON SOMETHING LIKE "MY COMPUTER" TO
24 THE TIME THAT THE BROWSING WINDOW TO THE WEB
25 CONTENTS IS TOTALLY LOADED, THAT IS FASTER IN

1 WINDOWS 98.

2 AND THE WAY WE ACHIEVE THAT PERFORMANCE

3 ENHANCEMENT IS BY SOMEBODY GOING AND SPENDING A

4 LOT OF TIME LOOKING THROUGH THE CODE AND FINDING

5 WAYS TO MAKE IT RUN FASTER. SO I CAN'T--I CAN'T

6 TELL YOU WHAT THAT IS. IT'S JUST A LOT OF WORK.

7 YOU JUST GO, AND YOU CRANK THROUGH IT, AND YOU

8 FIND WAYS TO MAKE IT FASTER.

9 AND THE THING ABOUT DOING PERFORMANCE

10 WORK ALSO THAT'S INTERESTING IS THAT YOU GET MOST

11 OF YOUR BENEFITS BY DOING A LOT OF LITTLE THINGS,

12 AND THEN THEY ADD UP. SO THAT'S ONE EXAMPLE.

13 ANOTHER EXAMPLE--

14 Q. BEFORE--I'M SORRY TO INTERRUPT YOU.

15 WHEN YOU DESCRIBE SOMEBODY METICULOUSLY

16 GOING THROUGH THE CODE AND FINDING LITTLE WAYS TO

17 MAKE IT FASTER, YOU'RE TALKING ABOUT THE SPECIFIC

18 CODE FOR WHATEVER IT IS YOU'RE IMPROVING.

19 IN THIS CASE, IT WOULD BE APPEARANCE OF

20 THE WEB VIEW INITIALLY?

21 A. YES.

22 AND JUST TO BE SPECIFIC ABOUT THAT

23 CASE, THE APPEARANCE OF THE WEB VIEW--IT SOUNDS

24 LIKE A SIMPLE THING. YOU DOUBLE-CLICK THE ICON,

25 AND THIS WINDOW SHOWS UP.

1 BUT KEEP IN MIND THAT THAT MEANS
2 THAT--IT'S HOW FAST SHELL32 CAN ENUMERATE THE
3 CONTENTS OF THE HARD DISK, HOW FAST MSHTML CAN
4 DRAW THE HTML, HOW FAST THE TOOLBAR CAN LOAD WHAT
5 THE BUTTONS ARE AND PAINT THEM ON THE SCREEN, HOW
6 FAST THE SHDOCVW.DLL CAN KNOW WHAT CODE IT'S
7 GOING TO LOAD INTO ITS CONTEXT IN DISPLAY.
8 AND A WHOLE LOT OF STUFF HAPPENS FROM
9 THE TIME THE ICON GETS CLICKED AND THE TIME THE
10 WINDOW SHOWS UP. SO THAT'S ONE EXAMPLE.
11 ANOTHER EXAMPLE WOULD BE CLICKING ON
12 THE START MENU AND SEEING THE MENU APPEAR AND
13 SEEING THE ADDITIONAL MENUS APPEAR AS YOU MOUSE
14 OVER ITEMS. THAT'S ANOTHER THING THAT WE MADE
15 FASTER.
16 WHAT ELSE DID WE DO? SOME OF THE
17 BEHAVIORS OF THE ACTIVE DESKTOP HAVE PERFORMANCE
18 IMPROVEMENTS, AND I DON'T REMEMBER WHAT ALL THE
19 SPECIFICS OF THOSE ARE.
20 MORE SPECIFICALLY RELATED TO BROWSING,
21 THE MSHTML COMPONENTS, WHICH WILL RENDER SHELL
22 WEB VIEWS OR ORDINARY WEB PAGES FOR ORDINARY WEB
23 BROWSERS, RECEIVED SOME SIGNIFICANT PERFORMANCE
24 ENHANCEMENTS, AND I DON'T KNOW THE EXACT NATURE
25 OF THOSE.

1 I THINK THAT'S' A PRETTY GOOD LIST.

2 ONE OTHER THING IS THAT, AS I MENTIONED

3 BEFORE, THE ACTIVE DESKTOP IS IN THE RETAIL

4 VERSION OF WINDOWS 98 IS TURNED OFF BY DEFAULT.

5 AND THE MAIN REASON FOR THAT IS TO REDUCE THE

6 RESOURCE CONSUMPTION SO THAT THE OVERALL SYSTEM

7 PERFORMANCE WILL BE ENHANCED.

8 Q. AND WHY--IS THAT PARTICULARLY IMPORTANT

9 IN THE RETAIL CHANNEL OR THE RETAIL VERSION OF

10 WINDOWS 98?

11 A. I DON'T UNDERSTAND YOUR QUESTION.

12 Q. IS IT--WHAT I'M GETTING AT, IS THERE A

13 CONCERN THAT PEOPLE WHO WOULD BUY THE RETAIL

14 VERSION MIGHT HAVE MACHINES WITH LOWER

15 CAPABILITIES, LESS MEMORY, OR LESS SPEED THAT

16 WOULD PERHAPS NEED THIS--NEED LESS STRAIN BY

17 HAVING THE ACTIVE DESKTOP TURNED OFF? IS THAT

18 PART OF THE THINKING?

19 A. SURE, THAT WOULD BE PART OF THE

20 THINKING.

21 Q. IS YOUR GROUP INVOLVED AT ALL IN SORT

22 OF TESTING THE PERFORMANCE OF SPECIFIC

23 APPLICATIONS VIS-A-VIS HOW THEY MIGHT BE AFFECTED

24 BY THE VARIOUS PERFORMANCE IMPROVEMENTS YOU'RE

25 MAKING IN YOUR CODE?

1 A. I DON'T THINK ANYONE IN OUR GROUP IS
2 TESTING OTHER APPLICATIONS. THERE'S A
3 PERFORMANCE TESTING TEAM THAT I THINK IS COVERING
4 ALL THAT STUFF, ALTHOUGH WE GET THE DATA.
5 Q. HAVE YOU SEEN ANY DATA OR HEARD ABOUT
6 ANY TESTING THAT'S BEEN DONE TO DETERMINE WHETHER
7 OR NOT HAVING THE ACTIVE DESKTOP TURNED ON IN
8 WINDOWS 98 WOULD BE, IN ANY WAY, AFFECT THE
9 PERFORMANCE OF NETSCAPE NAVIGATOR OR COMMUNICATOR
10 IF IT WERE ALSO LOADED ON THAT PC RUNNING WITH
11 WINDOWS 98?
12 A. I'M NOT AWARE OF ANY DATA AND WOULDN'T
13 EXPECT THAT THERE IS ANY REASON WHY THE ACTIVE
14 DESKTOP WOULD SPECIFICALLY ENHANCE THIS
15 APPLICATION.
16 Q. I DIDN'T MEAN TO LIMIT IT TO EXACTLY
17 THAT. BUT WHATEVER EXTRA RESOURCES THE ACTIVE
18 DESKTOP MADE TO THAT, DO YOU HAVE ANY--HAVE YOU
19 HEARD ANYTHING ABOUT ANY TESTING THAT'S BEEN DONE
20 TO SEE WHAT, IF ANY, EFFECT THAT EXTRA DRAIN ON
21 RESOURCES MAY OR MAY NOT HAVE ON THE PERFORMANCE
22 OF NAVIGATOR OR COMMUNICATOR?
23 A. I THINK I JUST ANSWERED THIS. I DON'T
24 KNOW OF ANY SPECIFIC DATA THAT RELATES
25 SPECIFICALLY TO THOSE TWO APPLICATIONS.

1 BUT IN GENERAL, AS I SAID EARLIER, THE
2 ACTIVE DESKTOP BEING ABLE REQUIRES MORE RESOURCES
3 AND WILL HAVE AN IMPACT, AN EQUAL IMPACT ON ALL
4 OF THE OTHER APPLICATIONS RUNNING ON THE SYSTEM.
5 Q. WHATEVER APPLICATION NEEDS THOSE
6 RESOURCES?
7 A. RIGHT.
8 Q. OKAY. DO YOU HAVE ANY SENSE OF WHAT
9 THE EXTRA RESOURCES ARE THAT ARE REQUIRED WHEN
10 THE ACTIVE DESKTOP IS ON?
11 A. IT'S BASICALLY MEMORY.
12 Q. IS IT RAM, RANDOM ACCESS MEMORY?
13 A. YES.
14 (EXCERPT.)
15 Q. FIRST OF ALL, LET ME JUST ASK YOU IN
16 THE TITLE OF THE HEADING SECTION, THE HEADING
17 ITSELF, AND THEN IN A NUMBER OF PLACES THROUGHOUT
18 THIS SECTION, IT REFERS TO THE BROWSER.
19 CAN TELL ME WHAT YOUR UNDERSTANDING IS
20 OF WHAT THAT MEANT OR WHAT THAT REFERRED TO HERE.
21 A. SURE. IN THIS CONTEXT THE WORD
22 "BROWSER" IS REFERRING TO A CODE ARCHITECTURE SET
23 OF FUNCTIONALITY. SO IF YOU--YOU HAVE TO CHANGE
24 YOUR THINKING HERE AND TRY TO THINK LIKE A
25 SOFTWARE ARCHITECT.

1 Q. OKAY. I'M READY.

2 A. AND WHEN WE DO GOOD SOFTWARE

3 ARCHITECTURE, WHAT WE'RE ABLE TO DO IS TO BREAK

4 WHAT IS A COMPLEX AND VERY FULL SET OF

5 FUNCTIONALITY INTO MEANINGFUL COMPONENTS, EACH OF

6 WHICH SORT OF CAN BE SELF-CONTAINED AND CAN

7 IMPLEMENT THE JOB THAT IT'S SUPPOSED TO DO IN A

8 VERY EFFICIENT WAY. AND IF YOU DO A REALLY GOOD

9 JOB OF THIS, THEN EACH OF THOSE SEPARATE

10 COMPONENTS ARE VERY USEFUL TO OTHER PARTIES THAT

11 WANT TO TAKE ADVANTAGE OF THEM.

12 ONE WAY TO THINK ABOUT IN ARCHITECTURE

13 AS IT EXISTS NOW, WHEN CHRISTIAN IS REFERRING TO

14 THE BROWSER CONTROL, HE'S REFERRING TO A

15 PARTICULAR POINT IN THIS LAYERING WHERE TODAY

16 APPLICATION WRITERS CAN ENCAPSULATE A WHOLE CHUNK

17 OF IE FUNCTIONALITY--A COMPONENT, IF YOU

18 WILL--AND MAKE IT APPEAR LIVE AND RUNNING INSIDE

19 THEIR APPLICATION.

20 WHAT HE'S DOING IS HE IS CONTRASTING A

21 TRIDENT PART OF THAT WITH A BROWSER,

22 QUOTE-UNQUOTE, PART OF THAT.

23 AND THE DISTINCTION THAT HE'S MAKING IS

24 THAT THE LOWER-LEVEL PART OF THIS SHOULD

25 EXCLUSIVELY HAVE FOCUS ON READING HTML CODE AND

1 RENDERING IT TO THE SCREEN AS WELL AS EXPOSING
2 THIS THING CALLED AN OBJECT MODEL FOR THAT.
3 AND WHAT THAT MEANS IS THAT THE OBJECT
4 MODEL IS THE MECHANISM BY WHICH ANY THIRD-PARTY
5 ELEMENT CAN MANIPULATE THAT HTML SO AS TO MAKE
6 THINGS MOVE AROUND ON THE SCREEN OR TO RESPOND TO
7 MOUSE CLICKS. THERE ARE TONS OF STUFF YOU CAN
8 DO. THIS IS VERY FLEXIBLE.
9 SO WHAT HE'S TRYING TO DO IS DESCRIBE
10 THAT ONE INTERESTING LAYER WOULD BE TO HAVE A
11 CLEAR DISTINCTION BETWEEN THIS HTML RENDERING
12 CHUNK AND A CHUNK THAT YOU MIGHT REFER TO AS A
13 BROWSER CHUNK.
14 NOW, WHAT HE MEANS BY THIS IS THERE'S A
15 WHOLE BUNCH OF CODE THAT RELATES TO THE ACT OF
16 DISPLAYING A SERIES OF HTML PAGES. AND THAT CODE
17 INCLUDES THINGS LIKE IF I GO FROM ONE HTML PAGE
18 TO THE NEXT, A WAY TO REMEMBER WHAT THE OLD ONE
19 WAS SO YOU COULD GO BACK.
20 AND THAT SOUNDS LIKE A SIMPLE THING,
21 BUT ACTUALLY IT'S NOT. AND PART OF THE REASON
22 IT'S NOT, IF YOU WERE TO THINK OF AN EXAMPLE, IF
23 YOU WERE TO GO TO AN HTML PAGE THAT HAD A FORM
24 WHERE YOU WERE GOING TO TYPE A BUNCH OF
25 INFORMATION IN AND THEN YOU WENT ON TO ANOTHER

1 HTML PAGE AND YOU WENT BACK TO THAT ONE, HOW DO
2 YOU REMEMBER WHAT YOU'VE TYPED INTO THE FORM?
3 ALL RIGHT. SO THERE'S LOTS AND LOTS OF
4 PLACES WHERE THAT WOULD GET COMPLICATED.
5 I'LL GIVE YOU ANOTHER EXAMPLE OF WHY
6 THAT'S COMPLICATED. IT'S ALSO COMPLICATED
7 BECAUSE SOME HTML PAGES REALLY WEREN'T JUST ONE
8 HTML PAGE. THERE'S A FEATURE OF HTML CALLED
9 FRAMES. AND WITH FRAMES AN HTML AUTHOR CAN SAY I
10 WANT TO SHOW THIS HTML PAGE AND THAT ONE THERE.
11 AND NOW YOU CAN NAVIGATE INTO EACH ONE OF THESE
12 SECTIONS AND HAVE A BACK-AND-FORTH KIND OF THING.
13 SO, WHAT HE'S REFERRING TO IS THAT HE
14 WANTS TO IMPROVE OUR COMPONENTS SOFTWARE BY
15 REFACTORING WHERE SOME OF THE FUNCTIONALITY
16 LIVES. AND THIS MEANS WHICH PEOPLE WORK ON IT,
17 WHICH SOURCECODE FILES IT'S IN, AND IT PROBABLY
18 ALSO MEANS ULTIMATELY WHAT DLL FILES IT GETS
19 COMPILED INTO.
20 AND HE'S DESCRIBING SOME OF THE
21 BENEFITS OF REARRANGING THIS INTO A MORE RATIONAL
22 ORGANIZATION.
23 Q. SO, THE LAST THING YOU MENTIONED IN
24 THAT SERIES, WHAT DLL FILE VARIOUS THINGS GET
25 COMPILED INTO--THAT'S SOMETHING THAT CAN BE

1 CHANGED OR CAN BE DESIGNED WITH SPECIFIC GOALS IN
2 MIND, FOR EXAMPLE, MAKING THE ORGANIZATION OF THE
3 THINGS YOU'VE TALKED ABOUT MORE RATIONAL?
4 A. YES.
5 Q. AGAIN, JUST SO I UNDERSTAND, THE FIRST
6 SENTENCE HERE REFERS TO THE BROWSER CONTROL,
7 PAREN, SHDOCVW, WHICH IN THE DOCUMENT IS CAPITAL
8 S-H, CAPITAL D-O-C, CAPITAL "VIEW."
9 AS HE USES THAT TERM, HERE, WHAT DOES
10 HE MEAN THAT--DOES HE MEAN THAT TO BE THE SAME
11 THING AS THE BROWSER? OR IS THAT THE SAME THING,
12 AS YOU UNDERSTAND IT?
13 MR. AESCHBACHER: OBJECTION. CALLS FOR
14 SPECULATION.
15 THE WITNESS: WHAT DO YOU MEAN BY THE
16 BROWSER?
17 BY MR. MALONE:
18 Q. I'M INTERESTED IN YOUR UNDERSTANDING AT
19 THE TIME YOU READ THIS.
20 IN SOME PLACES IN THIS SECTION, HE SAYS
21 THE BROWSER, CAPITALIZED B, AND IN THIS SENTENCE
22 HE SAYS THE BROWSER CONTROL (SHDOCVW).
23 WAS IT YOUR UNDERSTANDING THAT--WAS HE
24 REFERRING TO THE SAME THING BY DIFFERENT NAMES,
25 OR IS ONE A COMPONENT OR SUBSET OF THE OTHER?

1 A. MY UNDERSTANDING, READING THIS, IS THAT
2 WHEREVER HE HAS USED THE WORD "BROWSER" HERE,
3 HE'S IMPLYING A PACKAGE OF SOFTWARE COMPONENT
4 FUNCTIONALITY THAT INCLUDES THE LAYER I WAS
5 TALKING ABOUT OF NAVIGATION AND DISPLAYING OF
6 PIECES OF HTML TOGETHER. IT IS A SOFTWARE
7 COMPONENT MEANING OF THE WORD.
8 Q. ALL RIGHT. IN SEVERAL DIFFERENT PLACES
9 HE REFERS TO SOMETHING--AND LET ME JUST POINT OUT
10 WHAT EACH OF THEM--WHERE EACH OF THEM ARE AND
11 THEN JUST ASK YOU GENERALLY. THE LINE THAT'S ALL
12 BY ITSELF UNDERNEATH THE FIRST PARAGRAPH, IT
13 READS, "IN ADDITION, THERE ARE THINGS THAT THE
14 SEPARATION BETWEEN TRIDENT AND THE BROWSER MAKE
15 DIFFICULT."
16 DO YOU SEE THAT?
17 A. UH-HUH.
18 Q. AND THEN THE SECOND BULLET POINT
19 UNDERNEATH THAT, HE REFERS TO MAKING IT DIFFICULT
20 TO SEPARATE THE BROWSER FROM THE SHELL AND REV
21 THEM SEPARATELY.
22 AND THEN DOWN IN THE VERY LAST SENTENCE
23 OF THIS SECTION, THE LAST LINE, HE REFERS TO AS
24 POSSIBLE WAYS TO DECOUPLE--D-E, HYPHEN,
25 COUPLE--SHELL AND BROWSER.

1 LOOKING AT THOSE THREE THINGS, WAS
2 THERE ANY CONSIDERATION UNDERWAY AT THE TIME HE
3 WROTE THIS THAT--AGAIN, BASED ON YOUR
4 UNDERSTANDING WHEN YOU GOT IT, THAT LED HIM TO
5 MAKE THE REFERENCES HERE THAT HE DID TO
6 SEPARATING AND DECOUPLING?
7 AND THEN WE CAN COME BACK AND TALK
8 ABOUT SPECIFICALLY THOSE, BUT WAS THERE
9 SOMETHING--WHAT WAS THE CONTEXT BEHIND HIS USE OF
10 THE PHRASES HERE, IF YOU KNOW?
11 A. I THINK THE MAIN CONTEXT THAT HE'S
12 DESCRIBING IS AN ARCHITECTURAL DESCRIPTION OF
13 CREATING MEANINGFUL AND USEFUL BUNDLES OF
14 TECHNOLOGY AND FUNCTION.
15 SO, TO GO BACK TO MY EXAMPLE, AT THE
16 LOWEST LEVEL IT MAKES SENSE TO HAVE A SOFTWARE
17 OBJECT THAT KNOWS HOW TO READ HTML AND DISPLAY IT
18 ON THE SCREEN AND THAT'S IT--JUST STOP THERE.
19 ACTUALLY, IT MAKES SENSE TO HAVE ONE
20 SOFTWARE COMPONENT THAT READS HTML AND ONE
21 SOFTWARE COMPONENT THAT READS IT ON THE SCREEN,
22 BUT THAT'S--TRIDENT DOES BOTH OF THOSE THINGS.
23 AT THE NEXT LEVEL IT MAKES SENSE TO
24 HAVE A SOFTWARE COMPONENT THAT KNOWS HOW TO KEEP
25 TRACK OF A SERIES OR SET OF HTML THINGS THAT ARE

1 BEING RENDERED. THAT'S HIS NOTION OF THE
2 BROWSER.
3 SO, WHEN HE TALKS ABOUT BROWSER
4 FUNCTIONALITY, HE SAYS, INCLUDING NAVIGATION,
5 HISTORY, FAVORITES, OBJECT MODEL, ET CETERA.
6 THEN HE GOES ON TO SAY, "BUT NOT UI."
7 AND WHAT HE'S DESCRIBING HERE IS AN
8 ARCHITECTURE WHERE YOU BUILD A SOFTWARE COMPONENT
9 THAT KNOWS HOW TO DO FUNCTIONS BUT DOES NOT IMPLY
10 ANY PARTICULAR WAY OF DRAWING PIXELS ON THE
11 SCREEN; THAT IS, THE USER CONTROL OF THOSE
12 FUNCTIONS.
13 WHAT THAT IMPLIES IS THAT SOME OTHER
14 PARTY--IN THIS CASE, HE USES THE TERM "SHELL" TO
15 DESCRIBE THE LAYER THAT WILL IMPLEMENT USER
16 INTERFACE--SOME OTHER PARTY CAN IMPLEMENT
17 WHATEVER USER INTERFACE THEY WANT.
18 SO, THERE ARE A COUPLE OF THINGS
19 IMPLIED BY THIS. ONE IS THAT TO THE EXTENT THAT
20 HE DECOUPLES SHELL AND BROWSER, MEANING UI STUFF
21 WITH NAVIGATION STUFF, HIS TEAM DOESN'T HAVE TO
22 WORRY ABOUT UI STUFF. IT'S NOT THEIR AREA OF
23 EXPERTISE, SO THEY CAN JUST IMPLEMENT
24 FUNCTIONALITY AND LET SOMEBODY WHO WANTS TO WORRY
25 ABOUT UI WORRY ABOUT UI.

1 ANOTHER THING THAT'S IMPLIED IN THIS IS
2 A MORE FLEXIBLE PIECE OF SOFTWARE ARCHITECTURE
3 THAT ENABLES THIRD PARTIES TO DO MORE EXPRESSIVE
4 AND VARIED THINGS.
5 SO, WHERE TODAY AN APPLICATION VENDOR
6 MIGHT USE OUR BROWSER CONTROL, THEY HAVE LESS
7 FLEXIBILITY IN TERMS OF DEFINING THE USER
8 INTERFACE TO THAT BROWSER CONTROL THAN THEY WOULD
9 IF THINGS WERE REARCHITECTED IN THIS WAY.
10 (EXCERPT.)
11 Q. WITH RESPECT TO THE DECISION OR YOUR
12 RECOMMENDATION THAT USERS BE GIVEN THE OPTION OF
13 WHETHER OR NOT THEY WANT TO INSTALL THE WINDOWS
14 USER UPDATE FEATURES OF THE INTERNET EXPLORER
15 TECHNOLOGIES, WHAT WAS YOUR RATIONALE FOR SAYING
16 THAT USERS SHOULD BE GIVEN THE OPTION OF WHETHER
17 THEY WANT TO INSTALL THOSE COMPONENTS OR NOT?
18 A. IT'S SIMPLE, AND IT'S BEEN A PRINCIPLE
19 WE'VE USED FOR A LONG TIME.
20 IN PARTICULAR WITHIN CORPORATIONS,
21 CORPORATE MIS MANAGERS WHO DEPLOY SYSTEMS TO END
22 USERS FREQUENTLY REQUIRE AND ASK US FOR, AND
23 SOMETIMES INSIST ON, FLEXIBILITY IN THE WAY THEY
24 CAN ROLL THE SYSTEM OUT.
25 I'LL GIVE YOU AN ANALOGY. YOU MAY NOT

1 KNOW THIS, BUT WHEN YOU INSTALL WINDOWS 95, THERE
2 IS AN OPTION TO INSTALL IT AND HAVE PROGRAM
3 MANAGER AND FILE MANAGER BE YOUR USER INTERFACE.
4 AND THAT'S EXACTLY BASED ON THE SAME PREMISE.
5 AS WE WERE DEVELOPING A NEW USER
6 INTERFACE AND MAKING IT AVAILABLE TO PEOPLE, SOME
7 CORPORATE MIS MANAGERS--THIS IS REASONABLE--THEY
8 WOULD LIKE TO BE ABLE TO DEPLOY SOME PARTS OF THE
9 TECHNOLOGY OR IN THE WINDOWS 95 CASE, A 32-BIT
10 OPERATING SYSTEM, AND THEY DON'T HAVE A TRAINING
11 SYSTEM YET TO TRAIN PEOPLE ON A NEW USER
12 INTERFACE. SO IT DOESN'T EVEN NECESSARILY MEAN
13 THAT THEY WON'T LIKE IT. THEY WOULD JUST LIKE TO
14 BE ABLE TO MANAGE THE DEPLOYMENT OF THE SYSTEM.
15 SO, IN IE 4'S CASE, IT'S ANOTHER
16 EXAMPLE OF THE SAME THING. IT'S A CHANGE IN THE
17 WAY THE USER INTERFACE WORKS.
18 SO, IT MAKES SENSE TO ENABLE CORPORATE
19 MIS MANAGERS TO MANAGE THEIR ROLLOUT OF THE NEW
20 SOFTWARE SO IF THEY WANT TO INSTITUTE A TRAINING
21 PROGRAM BEFORE THEY GIVE PEOPLE A USER INTERFACE,
22 IT'S POSSIBLE FOR THEM TO DO THAT.
23 AND THAT'S JUST ONE EXAMPLE OF A
24 SITUATION WHERE A USER MIGHT WANT TO CHOOSE TO
25 NOT INCLUDE THAT PARTICULAR PART OF THE CHANGE TO

1 THE SYSTEM.

2 Q. CONSUMER PURCHASERS OF INTERNET

3 EXPLORER OR CONSUMER--STRIKE THAT.

4 CONSUMERS WHO INSTALL INTERNET

5 EXPLORER 4 ON THEIR COMPUTERS ALSO HAVE THE

6 OPTION OF NOT INSTALLING THE WINDOWS USER UPDATE;

7 IS THAT CORRECT?

8 A. YES.

9 Q. WHY ARE CONSUMERS PROVIDED WITH THAT

10 OPTION? OR HOW IS IT A BENEFIT TO CONSUMERS TO

11 BE PROVIDED WITH THAT OPTION?

12 A. IT'S KIND OF THE SAME THING. IN

13 PARTICULAR, WITH THE SET OF TECHNOLOGIES THAT'S

14 THE WINDOWS DESKTOP UPDATE, THERE'S A COST TO

15 CHOOSING TO USE IT. IT REQUIRES MORE OF YOUR PC

16 RESOURCES. THE ACTIVE DESKTOP IS MORE COMPLEX

17 AND HAS MORE FUNCTIONALITY THAN THE OLD DESKTOP.

18 SO IT'S CERTAINLY POSSIBLE THAT PEOPLE WOULD HAVE

19 PC'S THAT DON'T QUITE HAVE THE HORSEPOWER TO BE

20 ABLE TO RUN IT WELL, AND THEY NEED TO BE ABLE TO

21 CHOOSE TO NOT INSTALL THAT. OR IF PEOPLE INSTALL

22 IT AND DECIDE THAT IT MAKES THEIR PC SLOW DOWN A

23 BIT, THEY NEED TO HAVE THE ABILITY TO REMOVE IT.

24 Q. IS THERE ANY OTHER BENEFIT OR RATIONALE

25 FOR PROVIDING CONSUMER USERS THE OPTION OF NOT

1 INSTALLING THE WINDOWS USER UPDATE OTHER THAN
2 RATIONALES THAT RELATE TO THE PERFORMANCE OF
3 THEIR SYSTEM OR THE SPEED WITH WHICH THEIR SYSTEM
4 WOULD WORK WITH THE USERS UPDATE?
5 A. I THINK IN THE CONSUMERS' CASE, THERE'S
6 A LOT OF REASONS WHY SOME PEOPLE MIGHT CHOOSE NOT
7 TO USE IT. SOME OF THE TRAINING ISSUES THAT
8 CORPORATIONS FACE CAN BE FACED BY CONSUMERS. IF
9 YOU HAVE A FAMILY THAT USES A PC AND TWO OF THE
10 PEOPLE--IT TOOK YOU A LONG TIME TO TEACH THEM HOW
11 TO USE IT, YOU MIGHT NOT WANT THE USER INTERFACE
12 TO CHANGE ON THEM. SO I THINK THERE'S A BROAD
13 SPECTRUM OF REASONS THAT WOULD MAKE SENSE FOR
14 PEOPLE TO NOT CHOOSE THAT FEATURE.
15 Q. I THINK EARLIER IN THE DAY YOU
16 TESTIFIED THAT THERE WERE A NUMBER OF THINGS THAT
17 YOU LOOKED AT IN TRYING TO IMPROVE USER
18 INTERFACE, AND ONE OF THOSE WAS TO MAKE THE USER
19 INTERFACES MORE CUSTOMIZABLE.
20 IS THAT A FAIR CHARACTERIZATION OF YOUR
21 TESTIMONY?
22 A. YES.
23 Q. WHY IS MAKING A USER INTERFACE
24 CUSTOMIZABLE BENEFICIAL?
25 A. OH, THERE'S A TON OF REASONS.

1 FOR ONE, IN AN ABSTRACT SENSE, PEOPLE
2 TEND TO DEVELOP A RELATIONSHIP WITH THEIR PC, AND
3 THEY LIKE TO BE ABLE TO MAKE IT A COMFORTABLE
4 ENVIRONMENT IN THE SAME WAY THAT YOU WOULD LIKE
5 TO BE ABLE TO ARRANGE YOUR OFFICE FURNITURE THE
6 WAY YOU WOULD LIKE OR JUST (SIC) THE HEIGHT OF
7 YOUR CHAIR. PEOPLE LIKE TO MAKE THEIR PC
8 ENVIRONMENT FIT THE WAY THEY WORK.
9 AND IN PARTICULAR, WITH WINDOWS USERS,
10 THERE'S A VAST ARRAY OF DIFFERENT TYPES OF PEOPLE
11 WITH DIFFERENT NEEDS AND DIFFERENT WORK STYLES.
12 SO ONE WAY THAT WE CAN ADDRESS INDIVIDUAL
13 CUSTOMERS' NEEDS IS BY MAKING IT POSSIBLE FOR
14 CUSTOMERS TO TAILOR THE ENVIRONMENT TO THE WAY
15 THEY WORK.
16 IT MAKES THE PC FEEL MORE PERSONAL AND
17 MAKES PEOPLE MORE PRODUCTIVE AND MORE EFFICIENT.
18 Q. SO, USER INTERFACE ISN'T SOMETHING
19 WHERE ONE PARTICULAR STYLE IS GOING TO BE OPTIMAL
20 FOR ALL THE DIFFERENT USERS; IS THAT IT?
21 A. THAT'S CORRECT.
22 (EXCERPT.)
23 Q. ARE YOU AWARE OF ANY REQUESTS BY ANY
24 OEM'S TO CUSTOMIZE THE WINDOWS 95 DESKTOP?
25 A. I DON'T RECALL ANY SPECIFIC REQUESTS,

1 BUT I RECALL OEM'S FROM THE WINDOWS 95 TIME FRAME
2 EXPRESSING A DESIRE THAT THE USER INTERFACE WOULD
3 ALLOW THEM SOME ADDITIONAL FLEXIBILITY IN
4 DIFFERENTIATING PC'S. AND PART OF THAT WAS OUR
5 MOTIVATION IN DOING ACTIVE DESKTOP AND MAKING IT
6 POSSIBLE FOR THEM TO ADD CONTENT TO THE DESKTOP.
7 Q. AND I GATHER FROM YOUR PREVIOUS
8 TESTIMONY THAT SUCH CUSTOMIZATION, IN YOUR
9 OPINION, IS AN APPROPRIATE AND POSITIVE THING TO
10 ALLOW FOR THE OEM'S TO DO; IS THAT CORRECT?
11 MR. AESCHBACHER: OBJECTION.
12 AMBIGUOUS.
13 THE WITNESS: I THINK THAT THE OEM'S
14 ARE SHIPPING A PC, AND IT'S APPROPRIATE FOR THEM
15 TO BE ABLE TO EXPRESS THE FEATURES OR THE
16 DIFFERENTIATING CHARACTERISTICS OF THAT PC IN
17 THEIR WINDOWS USER INTERFACE.
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