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IN THE UNITED STATES DISTRICT COURT
IN AND FOR THE DISTRICT OF DELAWARE

OSSEO IMAGING, LLC,
Plaintiff,
v
PLANMECA USA, INC.,
Defendant.

- - -

: CIVIL ACTION NO.
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: 17-1386-LPS-CJB

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Wilmington, Delaware
Monday, August 27, 2018
Claim Construction Hearing

BEFORE: HONORABLE LEONARD P. STARK, Chief Judge

APPEARANCES:

BAYARD, P.A.
BY: STEPHEN B. BRAUERMAN, ESQ., and
ELIZABETH POWERS, ESQ.

and

MEISTER SEELIG & FEIN, LLP
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and

Brian P. Gaffigan
Official Court Reporter

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APPEARANCES: (Continued)

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P R O C E E D I N G S

(REPORTER'S NOTE: The following claim
construction hearing was held in open court, beginning at
1:02 p.m.)

1 THE COURT: Good afternoon.

2 (The attorneys respond, "Good afternoon, Your
3 Honor.")

4 THE COURT: I'll have you put your appearances
5 on the record for us, please.

6 MR. BRAUERMAN: Good afternoon, Your Honor.

7 THE COURT: Good afternoon.

8 MR. BRAUERMAN: Steve Brauerman from Bayard.

9 I'm joined at counsel table by my colleague, Elizabeth Powers.

10 MS. POWERS: Good morning, Your Honor.

11 MR. BRAUERMAN: And our lead counsel, Seth Ostrow.

12 MR. OSTROW: Good afternoon, Your Honor.

13 MR. BRAUERMAN: Antonio Papageorgiou.

14 MR. PAPAGEORGIU: Good afternoon.

15 MR. BRAUERMAN: And Sarah Pfeiffer of Meister
16 Seelig & Fein in New York.

17 And I also wanted to make one other
18 introduction; and that is we have in the courtroom today
19 Dr. Ronald Massie. He is the President and Chief Executive
20 Officer of Osseo Imaging, LLC.

21 THE COURT: Okay. Welcome to all of you. Thank
22 you.

23 MR. BRAUERMAN: Finally, Your Honor, I
24 apologize. I had at the very last minute a conflict arise,
25 and I have asked Ms. Powers to attend this hearing in my

1 stead. But may I be excused?

2 THE COURT: Yes.

3 MR. BRAUERMAN: Thank you, Your Honor.

4 THE COURT: Thank you.

5 (Mr. Brauerman leaves courtroom.)

6 THE COURT: Good afternoon.

7 MR. FLYNN: Good afternoon, Your Honor. Michael
8 Flynn from Morris Nichols on behalf of plaintiff, Planmeca
9 USA. And with me at counsel table is Leisa Peschel, David
10 Wooten, and Wasif Qureshi from Jackson Walker in Houston.

11 THE COURT: Welcome to all of you as well.

12 So we're here for claim construction. Have you
13 all conferred about how you want to use your time?

14 MR. OSTROW: Yes, Your Honor.

15 THE COURT: What do you propose?

16 MR. OSTROW: What we have worked out -- Your
17 Honor, Seth Ostrow for plaintiff. What we worked out with
18 opposing counsel is to go as a sequence in which to go
19 through the terms that are in dispute, some of which will be
20 grouped together in our discussion because they are related
21 subject matter.

22 So, in particular, this is a list of the terms
23 that are in dispute. And what we worked out with counsel
24 is to go through with them in this order, and ones that are
25 sort of grouped together in brackets, we'll do them as a unit.

1 THE COURT: Okay. Right. That's fine.

2 That's agreeable?

3 MS. PESCHEL: Yes, Your Honor.

4 THE COURT: All right. And each side can do
5 rebuttal before we move on from one set to the next, up to
6 your time limit.

7 If you are ready, you may begin then.

8 MR. OSTROW: Thank you, Your Honor.

9 So we have handed up to the Court a hard copy
10 of the set of slides. The Court has that, and we'll use
11 them -- we may or may not need all of them. We'll see how
12 it goes.

13 I also wanted to point out that the Court may
14 be aware of this. Dr. Massie, who was introduced earlier as
15 the president of the plaintiff, is also the inventor on all
16 three patents.

17 So the first group of terms relate to probably
18 what are the most technically difficult and challenging of
19 the set that the Court is being asked to consider.

20 And this relates to sort of the imaging
21 techniques and measurements that are being made through
22 those, through that imaging. So this is a little bit
23 thornier than the other issues and probably will take a
24 little bit more time, but we'll see how it goes. We'll
25 work our way through it.

1 So what I have done is, as the Court is
2 aware, we've got three patents in this case. I've got just
3 a representative claim that we're asserting from each of
4 the three patents. This is slide 3 of the presentations,
5 just the claim, claim 1 of the '301 patent. And we've
6 highlighted here where the terms in that first group appear.

7 In particular, it's a system for tomographically
8 modeling dental and orthopedic structure densitometry. It
9 has got two of the terms that are in that group. That is
10 a system which does tomographic modeling, which obviously
11 we're going to discuss and which is discussed in the briefs
12 at length. And then there is the densitometry, which is
13 what is being modeled.

14 So the first thing I'd like to point out, Your
15 Honor -- and this will come up time and again -- is there is
16 an immediate difference between the modeling, which is sort
17 of the "how." It's done through tomographic modeling, that
18 is the "how" the modeling is done. And what is being
19 modeled is the densitometry. So it is the "how" versus the
20 "what." They are not the same thing.

21 The Court has had the benefit, of course, of the
22 tutorial, so I was not planning to go through the tutorial,
23 although I'm happy to answer questions about it. But in our
24 tutorial, we did discuss at least generally what those terms
25 refer to in the field. Again, it will come up again in the

1 context of the patents.

2 This is on slide 4 of claim 1 of another of the
3 patents, the '262 patent, which was a continuation in part of
4 the '301, and the subject matter was filed a few years later.
5 And this one, there is a reference to the densitometry
6 information; again, the "what" that is being modeled.

7 What is being modeled is densitometry information.
8 And this is a system which has the components to do that as
9 well. This won't come up again until later, but just to make
10 the point that part of what is innovative, part of why these
11 patents got issued, what the invention is, is the idea and
12 the technology to create, store, and compare these models.

13 So Dr. Massie did not invent tomographic scanning.
14 He did not invent densitometry. Those were preexisting
15 technologies. What the Patent Office recognized that he
16 invented in part is the use of computers to create, store,
17 and compare models so that a dentist, like himself, could see
18 the difference between, for example, the current patient's
19 mouth and a standard mouth or the current patient's mouth and
20 what it looked like a year earlier.

21 So to be able to make that comparison between the
22 models, that was recognized as inventive by the Patent Office.
23 So that is captured in this claim as well. We'll get to those
24 terms a little bit later.

25 Finally, claim 13 of the third patent, the '374

1 patent has a reference to a tomographic modeling system.
2 Again, that is a reference to a system that performs, models
3 using tomographic scans. The data that is being modeled is
4 set forth in the claim. It is not limited, at least explicitly
5 not referencing densitometry in this claim.

6 So we've got some claims that reference
7 tomographic modeling of densitometry information, some claims
8 like this one which are just tomographic modeling of images,
9 and then some that just relate to densitometry not necessarily
10 being tomographically modeled. So there is a variation in the
11 claims.

12 Just to point out also, Your Honor, there is
13 not that much of an issue for today, I don't think, but
14 the '374 patent that was the third one to issue was filed as
15 a continuation in part of the earlier ones; but, in fact, it
16 reverted back to the specification from the original filed
17 '301 patent, so it has the exact same spec as the '301, even
18 though it's sort of the other gentry.

19 So in the first group that we have agreed to
20 address together, we have got all three of these sets of
21 terms. There is densitometry; there is tomographic model or
22 modeling terms; and then there is the combination terms,
23 tomographic densitometry model and the variations of those.
24 So those are the three.

25 I'll just quickly walk through this for the

1 Court's benefit. The briefing and the joint claim construction
2 statement just reflects here the difference between the
3 parties on what "densitometry" means.

4 We say that -- we, plaintiff, say that it means
5 "relating to the density of the structure of the object of
6 the tomographic scans."

7 In our briefing, which I won't repeat here
8 today, we did show numerous references in the specification
9 to the idea that what we're trying to get here is the
10 density of the object. And that is the main basis for their
11 construction was right out of the patent itself.

12 The defendants want to take a somewhat more
13 limited approach here that the term "densitometry" is limited
14 to the "calculated bone morphology density, or BMD, from
15 detected and merged intensity values at dual energy levels."

16 So there are a number of limitations in there
17 that we're going to address. For the moment, I wanted to
18 just take a look at the parties' positions on the other two
19 terms and then try to make a point about that.

20 The next set of terms is the tomographic model
21 related terms.

22 Plaintiff, we say that tomographic model is
23 essentially "the multidimensional representation of the
24 object obtained by merging a plurality of tomographic
25 scans."

1 This comes essentially right out of the patent
2 and generalized understanding of what a tomographic -- how
3 tomography works, basically by creating, by having a series
4 of scans of the object like a patient and then combining
5 them together to create a model.

6 Again, defendants want to limit this to
7 something more specific, which is a digital image that
8 depicts quantitative differences in BMD -- again, that
9 is the bone morphology density that they also say the
10 densitometry is limited to -- of the objects scanned and
11 so forth from at least one focal plane. We'll address
12 some of these limitations in a moment. And then,

13 Finally, there is that third set of terms
14 where the term "tomographic modeling" and "densitometry" are
15 combined in the claim; and plaintiff wants to have these
16 construed as the multidimensional representation, including
17 the density of the structure of the object, obtained by
18 merging the scans.

19 So what we have tried to do is do justice to
20 the two separate terms, the tomographic scanning, which is
21 the "how" the scanning is done, but it's the merger of a
22 plurality of scans with the fact that we're trying to get
23 the density of the object. That's the densitometry.

24 The defendants construed this in the same way
25 they construed the "tomographic model," without the word

1 "densitometry" we just went through.

2 So the result of this is that we've got a
3 variation of claims. Some claims used tomographic model,
4 some say tomographic densitometry model, or variations
5 on that where the two terms are combined. And under our
6 understanding of fairly well established patent law, at
7 least the presumption should be that if the terminology
8 is different, the meaning should be different.

9 So we at least have a starting point here, Your
10 Honor, that these two terms should not mean the same thing.
11 They should not be construed to mean the same thing.
12 They're just different terms.

13 The defendant, by construing them the same way,
14 effectively they're saying that the way the patent is using
15 the terms, the tomographic densitometry model is the same as
16 tomographic model. They're essentially reading the word
17 "densitometry" out of the claim because otherwise there is
18 no difference, according to them. But the word is there and
19 it should be given some meaning.

20 The way we, Osseo, plaintiff want to construe
21 these claims, what we have done is when the claims refer to
22 a tomographic densitometry model or again the variations on
23 that that are in the listed -- that are listed in the joint
24 claim construction statement, what we've done is we take
25 the "how," the "how" the tomographic model is created, and

1 we combine with the "what" the densitometry and have a
2 merged construction which reflects the meaning of both of
3 those terms. So that's the approach that we have taken
4 which we think is the correct way to go and consistent with
5 general principles of claim construction.

6 Another thing defendants want to do here is to
7 limit all of these terms to the specific type of densitometry
8 called bone morphology density modeling. And we'll go through
9 this in a little bit more detail, of course, but the
10 specifications of these patents does not discuss the use
11 of only one type of modeling. There is a reference to just
12 general tomographic modeling. There are references to
13 densitometry, generalized densitometry, and then there is
14 specific bone morphology density. So we don't believe that
15 this is consistent with patent law that one of ordinary skill
16 in the art would not meet all of those terms as limited to
17 only scanning bone morphology density, only scanning for that.

18 We've got some slides here which probably don't
19 need to be gone through verbatim, but just that they're
20 here. They're in the brief. The references are in the
21 brief, but just to take a few of them.

22 So, for example, right here in the patent, the
23 '374 patent doesn't want to be used for -- again, it has
24 same specification as the '301. There is first an initial
25 discussion of tomography which is sometimes referred to as

1 sectional radiography techniques using scanning x-ray beams
2 that have been employed for dental applications.

3 So that is the "how." There is a "how."
4 Instead of just taking a flat x-ray, there is a series of
5 scans, you know, taken, I'm sure the Court has seen in
6 tutorials and may otherwise be familiar, let's say, of a
7 person's mouth which are then combined. That is generalized
8 tomography, those techniques. So the patent discusses those.

9 Then it discusses that in the medical field. So
10 this is somewhat certain specific instances. Densitometry
11 procedures are used to measure bone morphology density by
12 using the same -- by using these scanning x-ray techniques.
13 So, again, it's the "how." The scanning techniques is the
14 "how," but what is being measured is the bone morphology
15 density in medical applications, which can be, for example,
16 for the treatment of osteoporosis or the detection of
17 osteoporosis.

18 Part of what bone morphology density tells the
19 doctor is the density of a particular bone which again can
20 be compared to, for example, other bones or the patient's
21 own progress over time. That particular type of density is
22 one type of densitometry that is used in the medical field.
23 And even the patent discusses it in this way.

24 The patent also discusses the fact that because
25 computers have gotten faster in 1999, and they have larger

1 memories, that has led to digitalizing of x-ray images.
2 This is part of what is supporting this invention is the
3 digitalizing of the images which then allows certain things,
4 functions, the storing and the comparing and so forth.

5 Similarly, again, the one on the left -- I'm
6 on slide 16 for the record. Again, we're showing here the
7 fact that there is a reference to tomography. After the
8 discussion of the bone morphology density, that that is
9 something that is used in medical applications for
10 osteoporosis and so forth, there is another discussion of
11 other things that could be detected.

12 So this is in column 2, lines 33 to 42. I don't
13 need to read the whole quote. I believe it is mentioned in
14 the briefs.

15 There is a reference to trying to detect
16 osteointegration, which is, as described here, is the
17 interface between bone and a prosthesis, like a dental
18 implant and densitometry, not necessarily bone morphology
19 density detection, but just densitometry in general, being
20 able to detect densities using tomographic scanning, can
21 be useful in checking up on that integration between, say,
22 the implant and the patient's tissue.

23 So that is something that is another application
24 of this; not necessarily the medical, it's not osteoporosis,
25 it's another application of bone densitometry.

1 Then we have some slides that show the
2 variations in the use of the terminology of the patent at
3 slide 17 -- I'm not sure it's worth -- and slide 18. I
4 think the point is made that the patent uses the terminology
5 in different ways. So I'm jumping now to slide 19.

6 The way we believe that this comes out in the
7 patent -- and I'm not swearing behind 100 percent accuracy
8 from a scientific point of view. This is more of a claim
9 construction point of view of how we believe the patent
10 should be construed. There is a general idea of tomography
11 as scanning of x-ray beams as we have explained already and
12 shown the quote we got here. Then one type of data that can
13 be detected using tomographic scans is densitometry which
14 relates to the density of the structure.

15 And, again, in our brief, we quoted a bunch of
16 cites which are listed here on slide 19 about the importance
17 of detecting density of the object, using tomographic scans.
18 Then one particular type of those is the bone morphology
19 density, which we discussed earlier, which comes out of the
20 medical field.

21 From our perspective, again, this is not
22 necessarily scientific, there may be ways for conducting,
23 for example, getting densitometry information through
24 means other than tomographic scans, but for purposes of the
25 patents, we believe that based on the way they're written,

1 this is the proper sort of concentric circle arrangement of
2 how these terms are used.

3 So the upshot is that we have proposed different
4 constructions for densitometry tomographic modeling, and
5 tomographic densitometry modeling, which we believe are
6 consistent with the patents and the specifications.

7 I'm going to get into some of the more specifics
8 of the constructions now. The defendants want to add
9 limitations to each of these terms which you need to
10 address.

11 One is on the issue of densitometry. Not only do
12 defendants want to limit it to calculating bone morphology
13 density, only that type, they also want to limit it to the use
14 of intensity values detected as dual energy levels. We'll get
15 to that in a second.

16 But let's start with this whole bone morphology
17 density limitation. So we argue that the patents are not
18 limited to only detecting bone morphology density, shown
19 before the more generalized quotes.

20 There are certain embodiments. There is an
21 embodiment that discusses bone morphology density. There
22 is no question about that. But as the Court is well aware,
23 the claims are not to be limited to embodiments in the
24 specification without a clear intent to do so.

25 And we don't think that the defendants have

1 shown anywhere near the intent, much less the clear intent
2 that the claims that discussed densitometry should be
3 limited to bone morphology density. So, for example --

4 THE COURT: Is there any distinction between
5 bone mineral density and bone morphology density?

6 MR. OSTROW: Honestly, Your Honor, I'm not 100
7 percent sure of that. For the sake of today, we're sort of
8 conceding the point that those may very well be the same.

9 It is not clear to us that the terminology is
10 meant, that quoting from this Bisek patent was meant to be
11 the same or not. It could just be variations in terminology
12 until things got more standardized, the newness of the
13 technology, but I don't actually know the answer. Actually,
14 there may not be an answer in that sense.

15 All right. So, Your Honor, jumping ahead, but
16 here we see on the slide -- we're up to slide 21 -- that
17 part of what defendants rely on is the fact that in our
18 patents, the background technologies are described briefly,
19 and then they're referenced to other patents which are
20 incorporated by reference. There is a fair amount of
21 discussion of this in the briefing, and I can go back to the
22 page. We can look at that again, if that is helpful.

23 But this Bisek and this Gershman patents are two
24 of the patents that are referenced by number in the patents,
25 in our client's patents as examples of the technology. And,

1 actually, I think I'm going to see if I can get this to work.

2 (Elmo settings adjusted.)

3 MR. OSTROW: All right. I'm trying. It should
4 work. I think it may be big enough, perhaps not up there
5 but your local monitor, Your Honor.

6 So this is where they're referenced. So, first,
7 there is a reference -- this is the touch screen. There is
8 a reference in where the discussion of tomography comes up
9 to a series of patents here in column 2, lines 8 through 12,
10 give or take. Those are not the patents that we're about to
11 discuss, but these are a set of patents that are talking
12 about tomographic scanning.

13 Then just further down in the column -- so again
14 in column 2, lines 17 through 20, 19, give or take -- there
15 are references to other patents, not the ones about
16 tomographic scanning. These are a different set of patents
17 that are referenced as examples. So these are examples of
18 densitometry procedures used for bone morphology density.

19 So, first, these are examples; okay? They're
20 not -- the patent didn't say this is exactly what I need.
21 These are just some examples. So these patents here, the
22 '5,533,080, and then the '675, and the reissued 36-162, two
23 of these are ones that have been discussed in the briefing
24 at length that we are going to turn to. I just want to
25 point out that these are reference only as examples. What

1 they teach is incorporated by reference.

2 So there is a sense it is certainly fair to
3 look at what they teach, but whether the claims should be
4 limited to what is in one of those patents which are cited
5 as examples and incorporated by reference is certainly far
6 from any clear intent to limit our patents in that way.

7 So let me go back to where we were. All right.
8 So back to slide 21.

9 Again, this reference to Bisek and Gershman,
10 those two, Bisek is the reissue and Gershman, I think one of
11 the other ones, the '765, I think.

12 So, yes, they discuss BMD, but even they discuss
13 it as examples or embodiments only. And, again, for the sake
14 of this discussion, if we're just going to drop it for the
15 sake of just saying, we'll just concede for today that bone
16 mineral density may not be the same thing as bone morphology
17 density. The defendants I believe say it is. We're not
18 conceding that, but for the sake of today it really doesn't
19 matter because it is just an example anyway.

20 Another point that defendants have made a fair
21 amount of argument is that bone morphology density is
22 required because the patents require a quantitative output.
23 Quantitative essentially I guess meaning numerically as
24 opposed to just the images.

25 And keeping in mind that the dentists are getting

1 images, they want to see what is going on inside the mouth
2 number, that may or may not be the numbers as long as they can
3 interpret the images. But coming back here, our patents are
4 not limited only to generating a series of numbers, and they
5 specifically contemplate outputting the visual image, for
6 example, color coding, which color coding doesn't give you
7 quantitative results, it's still visual, but it does show
8 the variations in dental densities, as the patent itself says.
9 And, again, there is a discussion of color coding graphical
10 representations of the tomographical densitometry, and that
11 the color coding corresponds to the densities.

12 So to the extent that we're learning that BMD
13 is required, bone morphology density, because it has to be
14 quantitative, that is not, again. Even the patent doesn't
15 require that.

16 There was an argument I believe that defendant
17 made in its response brief, I believe, the fact that color
18 coding itself per se must mean that there is a quantitative
19 value underneath it; and that is just not the case.

20 We have shown here images. The one on the left
21 comes out of our tutorial which came out of I think one of
22 their documents. I'm not sure about that. But it came out,
23 it was in our tutorial. It's a gray scale; right? So the
24 grey-scale can be colored to help the dentist see the image
25 much more clearly. So the one on the right comes from the

1 Internet.

2 So I acknowledge, Your Honor, it wasn't in our
3 papers. We didn't know the issue was going to need to be
4 addressed, but it's just an image off the Internet from a
5 site called Science Source sort of in the watermark of the
6 image which shows essentially a color grey-scaled image of
7 an x-ray. So the fact that coloring, color coding can be
8 done without calculating quantitative values. So, again,
9 the point being the patents reference the color coding can
10 support nonquantitative density images.

11 Another thing that defendants want to have the
12 Court put into the construction of "densitometry" is the
13 use of these various intensity levels, various intensities
14 at dual energy levels. So I don't know that either of our
15 tutorials did justice to this issue, to be honest. But
16 in effect, I'll just take a moment here, in a tomographic
17 scanning, the sequence of scans of so-called slices, the
18 portions of the person's mouth or other structure can all
19 be taken at the same energy level, single level, or at
20 different energy levels. And it was known that if the images
21 are using techniques that use different imaging levels, two
22 different imaging levels can often result in more accurate
23 imaging which is usually needed for bone morphology density
24 because of the trying to get to really fine tuned density
25 variations in bone, so dual energy levels are typically used

1 to calculate bone morphology density.

2 The defendants want the Court to limit the
3 densitometry term here to only dual energy levels. So, first
4 of all, I can discuss in our briefing that our specification
5 does not say this invention requires dual energy level
6 scans. That's a method, it's an embodiment, but it is not
7 a requirement of the claim.

8 The patent I believe says fairly explicitly, the
9 '262 patent, that you get more accurate results when you do
10 dual energy level, but it doesn't mean you have to have the
11 accurate results. That is just one embodiment.

12 But, more significantly, there are other reasons
13 why the claim "densitometry" should not be limited to that.
14 So, for example, there are dependent claims that add this
15 in. So by claim differentiation, the independent claim
16 should not be so limited.

17 The example I give here on slide 24 is actually
18 not the best example. This already went to print, and I
19 would have changed it, but I'll go through the other one in
20 a second.

21 But dependent claim 5 of the '301, the first
22 patent, says: The system, according to claim 1, where said
23 x-ray equipment comprises a dual energy level, restricted
24 beam device.

25 So if the fact that 5 depends from 1, which says

1 densitometry, so densitometry already requires dual energy
2 level, there is nothing to add. This is an unnecessary
3 additional limitation. So by claim differentiation,
4 densitometry is not so limited.

5 There is actually a better example. The better
6 example is in the '374 patent, claim, dependent claim 2. So
7 dependent claim 2 depends on claim 1. Claim 1 refers to a
8 restricted beam device, and dependent claim 2 says: wherein
9 the said restricted beam device comprises a dual energy
10 level restricted beam device.

11 So in that one, the only thing being added is
12 the dual energy level. Otherwise, it just says restricted
13 beam device. So there, that claim, claim 2 is basically
14 meaningless if claim 1 is going to be limited to the use of
15 dual energy levels.

16 Now, claim 1 doesn't say densitometry, but it
17 says tomographic modeling, but defendants say that is
18 limited to BMD anyway, so the point is the same. And then,

19 Finally, to the extent we're going to engage in
20 looking at these other patents to figure out what our patent
21 means, which, as I said a moment ago, I don't think is a valid
22 exercise because it's examples and it is giving background
23 but, anyway, if we're going to do that, one of the patents --
24 and it is 5,838,765, that is the patent number, it was one of
25 the ones I referenced, and is incorporated by reference in

1 Gershman -- explicitly states -- and I quoted the language on
2 slide 24 -- that the system -- I won't read the whole thing --
3 but the system described above can generate tomographic images
4 by collecting either single or dual energy x-ray data. In
5 this manner, a single energy or a dual energy CT image can be
6 obtained and can be analyzed for bone density.

7 See, bone density can be analyzed even with a
8 single energy one. It is just not as accurate. It doesn't
9 mean our patent is limited to that.

10 So this is, if we're going to engage in looking
11 at these other patents, this is not the one that defendants
12 primarily rely on. They rely on the Bisek one which only
13 has embodiments on dual imaging, but this one clearly
14 contemplates both.

15 All right. I'm getting near the end of my
16 section, Your Honor.

17 So there were two other terms in this group.
18 One was the "tomographic" term, "tomographic modeling." We
19 again have a construction that basically captures what a
20 tomographic model is. It's merged information: "merging
21 information from a plurality of tomographic scans of an
22 object to produce a multidimensional representation of the
23 subject."

24 That is basically what it is. That is what
25 tomographic modeling is. The patent is using it in the

1 normal way.

2 The defendants, again, want to have this be very
3 limited to a digital image that depicts, again, what the
4 quantitative difficulties, and, again, BMD is being used
5 which merges densitometry in just one embodiment. In all
6 those things, it explains all of the arguments apply why
7 that is too limiting.

8 And, in addition, the defendants want the
9 construction to be limited to that the objects scanned is
10 created by the microprocessor and the controller. So the
11 claim talks about a controller and a microprocessor. So
12 there is no need to reinsert those devices in here. Sure,
13 it's confusing. It is confusing and unnecessary. The
14 claims already say what is doing what.

15 And then, finally, the defendants want to add in
16 additional limitation "from at least one focal plane."

17 Let's discuss about that. We haven't covered
18 that one yet.

19 THE COURT: Before you move on to that. So do
20 you agree that the microprocessor and the controller are
21 what is doing the creating?

22 MR. OSTROW: Generally, yes. Except that we
23 appear to differ with them about this issue of whether there
24 is one microprocessor involved in all these components or
25 could be more than one. So that would be our concern is

1 that this language suggests that it is just the one that is
2 doing everything.

3 So to that extent, we're concerned about it, and
4 the Court knows we have arguments about other terms in that
5 respect. But the fact that a microprocessor, one or more
6 is doing, is helping create a digital image, yes, it is a
7 computer that the claim says is a microprocessor.

8 THE COURT: Okay.

9 MR. OSTROW: All right. So I don't think --
10 well, maybe the tutorials have done some justice to this
11 issue of focal plane. So the examples I think at least in
12 our tutorial that were provided for tomographic scans show
13 scans being done in planes. So planes -- so slices of my
14 head are being imaged in flat planes. And that is certainly
15 one way. Each scan is a focal plane, that is certainly one
16 way, but there are other ways. There are nonlinear shapes
17 that have been known and are used for tomographic scanning,
18 it is called circular tomography, circular shapes to account,
19 for example, for curves and things like mouths, jaws.

20 This is another one of those patents that is
21 referenced, incorporated by reference. This is Webber
22 that defendants rely on but in fact specifically discusses
23 nonlinear sections to be used for the scan. There is no
24 reason why our patent should be limited to focal planes,
25 essentially linear scans, and not allow for circular scans.

1 There is nothing in the patent, and there is clearly no
2 clear intent to limit it that way. And, in fact, the
3 references that we cited to, if we were going to go out and
4 look at them, have other examples. So there is no reason to
5 limit it.

6 All right. That concludes my presentation on
7 those issues. Unless the Court has any questions, I'll sit
8 down.

9 THE COURT: Yes. So the BMD limitation, you
10 touched on it in regard to I think all three of these sets
11 of claim terms. Is it the same issue for all three? Is it
12 really just one issue and up or down it's going to apply to
13 all three of these sets?

14 MR. OSTROW: No, Your Honor. There are some
15 overlapping issues. The fact that none of these terms
16 should be limited to BMD has a common issue that you don't
17 limit it to one example from the specification. So there
18 is that issue that applies to all. But, in addition, the
19 "tomographic modeling" terms that don't even mention
20 densitometry, that has nothing to do with bone morphology
21 density. That is just a methodology of scanning.

22 The bone morphology density is what is it I'm
23 measuring of? What is it I'm scanning for? The "how"
24 versus the "what." So in addition to being limited to an
25 embodiment, now we're taking claim language that discusses

1 how a model is created through tomographic scanning and
2 limiting it to what it's scanning. So that is another
3 reason why that is improper.

4 THE COURT: Right. But your view is that none
5 of the terms that you have already talked about which fall
6 into three categories the way the parties have organized
7 them, none of them are limited to BMD; correct?

8 MR. OSTROW: That is our position, yes.

9 THE COURT: And there may be some additional
10 reasons and one of those categories for why you are correct
11 in your view, but other than that, it seems to me it's one
12 issue. If I think that they are limited to BMD, that
13 limitation has to come in somewhere.

14 MR. OSTROW: Well, if the Court finds that
15 notwithstanding what we believe to be the case that
16 densitometry should be limited to one particular type of
17 densitometry, one type of getting data on density, meaning
18 bone morphology density, that may apply to densitometry or
19 terms that have densitometry. The term that does not have
20 densitometry, the tomographic scanning, there is no reason
21 to limit that to anything about density. It has nothing to
22 do with that.

23 THE COURT: All right. Thank you. We'll give
24 you a chance on rebuttal.

25 MR. OSTROW: Thank you.

1 THE COURT: We'll hear from defendant.

2 MS. PESCHEL: Good afternoon, Your Honor.

3 THE COURT: Good afternoon.

4 MS. PESCHEL: Leisa Peschel for Planmeca.

5 Let me touch on -- at slide 3, we have the
6 parties' positions on these terms. Let me touch on something
7 that wasn't said during Mr. Ostrow's presentation that is
8 exactly why, in their construction, it should be broadened to
9 simply relating to the density.

10 I'll explain in a minute how we get to BMD, but
11 I think what you see in this sort of patent is that it is
12 the density information that is modeled here. Let me point
13 that out to start with.

14 THE COURT: What, do you see some space in
15 between narrowly limiting this to BMD and to broadly just
16 saying it has to relate to density?

17 MS. PESCHEL: Well, I think, Your Honor, in that
18 space, I think if you look at bone mineral density in that
19 specific example, it is incorporated as part of the present
20 invention, then that is satisfied. I think it is the
21 calculated density that is what these patents are talking
22 about.

23 From a pure linguistic standpoint, "-metry" as a
24 suffix means measuring, the science and process of measuring.
25 So purely linguistically here, we have measuring density, and

1 that is the genesis of the construction that Planmeca has
2 proposed.

3 When we look at column 2 of the asserted
4 patents, you see that the inventor took what was known in the
5 medical field, these densitometry procedures, it discusses,
6 he discusses the fact that the densitometry procedures are
7 used for measuring bone morphology density (BMD), and that
8 the present invention utilizes those densitometry modeling and
9 mapping techniques for dental applications.

10 So one of those references incorporated is the
11 Bisek reference, reissued 36,162. What you see on slide 6
12 is simply two different parts of the specification of the
13 asserted patents. In column 2, it incorporates Bisek as an
14 example of a reference that teaches densitometry procedures.
15 And then you see this is the column 5 reference to Bisek
16 where it is also incorporated by reference for teaching of
17 dual energy densitometry.

18 When you look at Bisek, Bisek is probably the best
19 example of explaining what BMD means. And so essentially what
20 is happening here is you take dual energy measurements. So
21 you send x-rays through an object. You send it one x-ray
22 level, and then you send it a second x-ray level. And the
23 reason you do that is that the composition of the object is
24 going to affect the radiation that is transmitted through
25 and detected by the detector.

1 When you do it at dual energy levels, you get
2 a better idea of the composition of that object, but that
3 requires a mathematical analysis of that attenuated radiation
4 in conjunction with knowing how a composition of an object is
5 going to change that radiation going through.

6 So Bisek describes the general perspective of,
7 it's going to take some mathematical analysis and then it
8 describes how BMD is calculated in that you get bone marrow
9 content based on the attenuated radiation, and then that
10 allows you to get a density in terms of either an area, if
11 that is what your detector is detecting, or a volume. It
12 would be a volume if it is detecting a volume.

13 So one of the other patents incorporated by
14 reference is the Pelk reference. On slide 9, I'm just
15 showing some of the teachings of this particular reference
16 which show some of the complex mathematical calculations
17 that would be required to be happening inside the
18 microprocessor in order to determine what that density is.

19 And, again, I want to point this out again
20 because this is an important perspective. In column 2 of
21 the asserted patents, they give the examples of densitometry
22 procedures in the medical field using BMD. They then discuss
23 how computers and digitization has enabled this digital BMD
24 model to be developed in the medical field. And then it
25 says: the present invention utilizes such densitometry

1 modeling and mapping techniques for dental applications.

2 That is a clear intention to restrict the scope
3 of densitometry to the described BMD. That is a description
4 in the specification of the present invention that is
5 generally characterized in the invention as a densitometry
6 modeling system using those BMD techniques.

7 So we heard from Mr. Ostrow that it is Osseo's
8 perspective that the patents use the modeling terms
9 differently.

10 It's our position that that's not true when the
11 patents discuss the BMD models that is in the background of
12 the specification, and then it says the present invention is
13 going to use those types of modeling techniques. It then
14 goes on to describe "tomographical densitometry models."
15 It uses that term on what is consistently throughout the
16 specification. There is one instance in which it uses the
17 term "tomographic model" but then, again, that is directly
18 tied to densitometry.

19 Okay. Let me address the issue of the dual
20 energy levels. So this is in the summary of the invention
21 on slide 13. For the '301 patent, it's column 2, lines 54
22 to 61.

23 This is consistent through the patents. What
24 the patents describe is using those dual energy levels to
25 determine the densitometry. The patents themselves don't

1 discuss using a single energy level to get that information.

2 And let me address -- so I believe that this is
3 slide 21 of Osseo's presentation. This is essentially a
4 repeat what they said in footnote 1 of Osseo's reply.

5 For example, the reference with respect to
6 Bisek is merely a further example of why preserving the
7 local spatial fidelity is important when you are trying to
8 map a specific bone mineral density mask to a specific area.
9 And then from the perspective of the other patent, one of
10 the other patents is incorporated by reference to the '755
11 patent, the Gershman patent. There is some discussion in
12 there of whether you can use a single energy level or dual
13 energy level.

14 I think that that is irrelevant in the context
15 of the asserted patents because what the specification tells
16 us is that it's those dual energy levels that are used.

17 THE COURT: Where do they tell us that?

18 MS. PESCHEL: So in the summary in the
19 invention, it says: the x-ray equipment emits and detects
20 x-ray beams at first and second energy levels. So that is
21 the '301 patent column 2, lines 54 to 56. And it also
22 repeats that in column 5.

23 So one of the other things Mr. Ostrow mentioned
24 is that there is the color coding and, therefore, that
25 should not be a qualitative aspect of the densitometry.

1 I reject that contention because the color coding
2 that is described in the patent, again, this is in the summary
3 of the invention, it discusses using the densitometry output
4 by the tomographic model. The model can be output in various
5 formats, including a visual image color coded to depict
6 various densities.

7 So we're talking about a microprocessor and a
8 controller that is using this information to create a model
9 of that structure. If it is going to color code densities,
10 it must know what those densities are.

11 Then I also want to point out that as to the
12 "tomographical densitometry model" terms, Osseo has admitted
13 that the use of densitometry in that term adds density, and
14 so, you know, whereas their construction says merely
15 relating to density, when we apply it to the model terms, it
16 adds density.

17 So I want to switch and go back to the "focal
18 plane" issue on tomography. So you will see on slide 18
19 the parties' positions on "tomographic model." And, in
20 particular, I want to focus at least first on this last part
21 of "from at least one focal plane."

22 That is Planmeca's position in order to give
23 meaning to the word "tomography" or "tomographic" in these
24 terms.

25 So, again, it's been mentioned here today, the

1 asserted patents in column 2, it's column 1 of the '301 at
2 the very bottom and the top of column 2 incorporated by
3 reference five tomography references.

4 One of those is Webber. What Webber describes
5 is it gives a very good explanation of what tomography is.

6 Tomography is a process of creating an image of
7 an object and of a selected plane of that object.

8 So here, Weber describes what happens. You have
9 got the x-ray source and the x-ray film. They're moved in
10 predetermined locations relative to each other, so that the
11 relative movement between the two of them defines a region
12 of interest.

13 So if you imagine, you've got a source and a
14 detector. If they move linearly, they are moving like this.
15 And there is one region, one focal plane for which nothing
16 else moves. And so you will get a very sharp focus of that
17 plane. And so the tomographic processing allows that plane
18 to be shown in very sharp focus. It doesn't matter how
19 the x-ray detector and film are moving because that can be
20 accounted for mathematically. So if they're moving in a
21 circular fashion, there is still going to be a single focal
22 plane, whether it is an angle or a different angle, but it
23 is a focal plane where that region is going to be in sharp
24 focus.

25 On slide 21, it is merely, so there is

1 conventional tomography in which the detector would be x-ray
2 film, and there is computed tomography in which the digital
3 detector would be used, but it is the same issue: that
4 there be a focal plane and the number of images that you
5 created would be bifocal plane.

6 THE COURT: So what does your construction do
7 with circular tomography? Does it rule it out or is it --

8 MS. PESCHEL: No. Absolutely not, Your Honor.
9 Circular tomography is describing the mechanism by which
10 the x-ray source and detector move together. So there still
11 would be a single focal plane regardless of the way that it is
12 moving. And the focal plane might change as it is moving, but
13 that would be of different images as it is moving.

14 THE COURT: So if I adopt your construction, I
15 have done nothing to take circular tomography out of the
16 scope of the claims?

17 MS. PESCHEL: Correct, Your Honor.

18 So I want to transition now from the idea that,
19 so tomographic gives an indication that there must be a
20 single focal plane or at least one focal plane.

21 The asserted patents consistently described
22 the models of the invention as densitometry models. That is
23 the reason that our construction takes into account for
24 tomographic model that there is a densitometry requirement.

25 So the only patent that uses tomographic model

1 in the claims is the '374 patent which is the later to issue
2 of the patents. And you note that the very title of this
3 patent is: dental orthopedic densitometry modeling system.

4 Seven times in the specification, present
5 invention is tied to a densitometry modeling system and
6 method.

7 Every reference to a tomographical model includes
8 densitometry. So if you look through the specification, it's
9 almost consistently tomographical densitometry, tomographical
10 densitometry model.

11 On slide 28 at the very top, so this will be for
12 the '374 patent, it would be at column 2, lines 67 to
13 column 3, line 5.

14 You see the single instance in which tomographic
15 model is used in the asserted patents and specification.
16 And you see that it is tied to the densitometry output and
17 that that model can depict varying densities. So, again,
18 it is tied to the idea of using the density information to
19 create a model.

20 THE COURT: So why doesn't it say "tomographic
21 densitometry model" in that one instance?

22 MS. PESCHEL: I don't know, Your Honor.

23 THE COURT: There is no legal significance to it?

24 MS. PESCHEL: I don't believe so, Your Honor.

25 Because I think that in this particular excerpt, the only

1 use of tomographic model ties it to density.

2 THE COURT: Is it maybe just shorthand the
3 patentee got tired of repeating himself?

4 MS. PESCHEL: That certainly could be, Your
5 Honor.

6 THE COURT: And this is the sole instance in
7 what shows up one time in the '301 and one time in the '374?

8 MS. PESCHEL: Yes, Your Honor. The '301 and the
9 '374 have identical specifications.

10 THE COURT: But in that --

11 MS. PESCHEL: Yes.

12 THE COURT: -- joint specification, it is only
13 there once?

14 MS. PESCHEL: Yes, Your Honor.

15 THE COURT: Every other time, we see
16 "tomographic densitometry model;" correct?

17 MS. PESCHEL: Yes.

18 Again, on slide 29, it is just one more example
19 from column 5 where it is specifying it is the densitometry
20 is tomographically modeled.

21 When you look at the prosecution history of the
22 '301 patent as just one more evidence of the intent, this
23 invention relates to the densitometry modeling system. The
24 patentee repeated the characterization of the invention of
25 the densitometry modeling system. In particular, he is

1 arguing to distinguish certain prior art and included the
2 fact that it is the teaching of a dental and orthopedic
3 densitometry modeling system was part of the reason that it
4 was patentably distinguishing.

5 So for these reasons, it is Planmeca's position
6 that densitometry is a necessary part of the invention,
7 densitometry model should be construed to require the use of
8 densitometry to create the model.

9 Again, on slide 31, I have some citations that
10 were also in the briefing. But essentially what the Federal
11 Circuit has held the statements that are not merely just
12 describing a preferred embodiment but characterizing the
13 invention as a whole were those that lead to an inescapable
14 conclusion that the patentee intended to limit claim scope.

15 And that is what we have here, particularly
16 where the patentee has tied the present invention to
17 densitometry modeling seven times.

18 So part of Osseo's problem with including a
19 densitometry requirement for tomographic model appears to be
20 a claim differentiation argument between claim 1 of the '374
21 patent and claim 1 of the '301 patent.

22 Again, I would point out that, number one, claim
23 differentiation is not a rigid rule, it is one of the tools.
24 And the Federal Circuit has rejected claim differentiation
25 arguments where the specification has repeatedly and

1 uniformly described the invention to include a particular
2 limitation.

3 But I also want to direct the Court's attention
4 to these two claims, because there is two issues with the
5 claim differentiation argument:

6 No. 1. It is a claim differentiation argument
7 between claims of different patents, so it's not the
8 typical situation where you have an independent claim and a
9 dependent claim and that dependent claim is giving some
10 consideration to how broad the independent claim should be.
11 These are in two different patents.

12 But also the second point is that there are many
13 differences between these two claims. Claim 1 of the '374
14 patent says adaptive restoring. That is a means for storing
15 in the '301 patent. The '301 patent refers to preexisting
16 models whereas that is not a limitation of the '374. The
17 '374 requires a restricted game device. That is not a
18 requirement of claim 1 of the '301.

19 And then the '374 patent refers to a converter
20 whereas the '301 patent refers to a conversion means.

21 So, again, so where we have come out is that
22 "tomographic model" and "tomographic densitometry model" terms
23 should be construed consistently because the densitometry
24 aspect is a requirement of the invention as a whole.

25 Now, I want to talk a little bit about Osseo's

1 proposed construction. There are a couple of issues that
2 we see with their proposed construction. Their proposed
3 construction seems to indicate that it's the scans that
4 are merged. It's not the scans that are merged, it's the
5 information that is merged as described in the asserted patent.

6 Then they use the word "tomographic" to modify the
7 word "scan" whereas in the asserted patents, "tomographic" or
8 "tomographically" is always used to modify the word "model,"
9 so it is a description of how you arrive at that model rather
10 than the way in which the scans occur.

11 And, again, just to put a finer point on that.
12 It's the digitized detector array or densitometry output
13 that is on slide 38. I'm showing one example of the column
14 2 of the patent and one example from column 5 where it is
15 talking about the information that is being merged. It is
16 not the scans themselves that are being merged.

17 Then on slide 39, it is just showing that it is
18 not scan, it is tomographic. It is the modeling that is
19 tomographic.

20 And then one last point on tomographic model and
21 the idea of tomographic. So they have an issue with us
22 talking about a focal plane. Their own evidence that they
23 cited defines tomography as a method of making x-ray
24 photographs of the selected plane of the body.

25 So briefly let me talk about tomographic

1 densitometry model.

2 On slide 42 are the parties' positions. I'll
3 note for the Court that our position is that "tomographical
4 densitometry model" and "tomographical model" terms should
5 be construed consistently because they all include that
6 densitometry requirement.

7 So as we discussed, this tomographical aspect is
8 that "tomographical densitometry model" term requires that
9 it must use the densitometry from at least one focal plane
10 to generate the model, and that densitometry would be the
11 calculated BMD from the detected and merged intensity
12 values.

13 And then I believe that it was conceded. The
14 reason that we clarified it's the microprocessor and the
15 controller that creates the model is just for clarity,
16 because the claims themselves do indicate that. But it
17 was in terms of trying to make it useful for the jury as
18 to understanding what these model terms mean.

19 So on slide 44, at column 2, lines 39 to 50,
20 column 4, lines 32 to 39, and then the claim language
21 itself in claim 1(f) is just showing that that tomographical
22 densitometry model is modeled by the microprocessor and the
23 controller.

24 THE COURT: What about the dispute about one or
25 more? Does that have implications for this issue, for this

1 construction?

2 MS. PESCHEL: For this construction? I think,
3 Your Honor, the dispute over one or more is going to carry
4 through to this construction as well.

5 THE COURT: So whatever I say when we get to a
6 controller would be applied here?

7 MS. PESCHEL: Yes, Your Honor. And what you
8 will hear from my colleague is that the specification only
9 describes a single controller.

10 THE COURT: Is that it?

11 MS. PESCHEL: Yes, that's it.

12 THE COURT: I have a couple more questions.

13 MS. PESCHEL: Sure.

14 THE COURT: So if I were persuaded to limit
15 these terms to densitometry, is it still in your mind a
16 separate question whether to limit them also to BMD? I know
17 you think they should be limited to BMD, but as I sit down
18 to sort through, are those two different questions or does
19 one follow from the other?

20 MS. PESCHEL: I think they're two slightly
21 different questions because the parties have a dispute over
22 what densitometry means. So whereas Osseo is saying, well,
23 it just merely has to, densitometry just merely has to relate
24 to density, our construction, whether it is BMD or density
25 information, that there must be a calculated density -- right?

1 -- what the patent described as a calculated BMD, bone marrow
2 density, but there must be some analysis that creates that
3 densitometry.

4 THE COURT: Do you agree that as a general
5 presumption that the analysis should start with a presumption
6 that tomographic modeling is different than tomographic
7 densitometry modeling, it's just you think you have a good
8 explanation for why that presumption doesn't apply or is
9 rebutted, I should say, or is that presumption not even one I
10 should be applying?

11 MS. PESCHEL: Well, Your Honor, I think that
12 if a brand new patent was written that said tomographic
13 modeling and it says tomographic densitometry modeling, I
14 think you would start with thinking these are two different
15 things. But in the context of these asserted patents,
16 the invention is a densitometry modeling system, and so
17 densitometry must be a requirement, and the densitometry
18 that must be a requirement is applied to the modeling in the
19 asserted patents, and that is why it should be incorporated
20 into the tomographic model construction.

21 THE COURT: The way the plaintiff articulates
22 it, they say the modeling is the "how" and the densitometry
23 is the "what." Do you agree with that conception?

24 MS. PESCHEL: I agree with that conceptually
25 that tomographic is how you're taking the planes of data

1 and processing it, and that it is the densitometry or the
2 calculated density that is being used as the basis to
3 create that model.

4 THE COURT: Okay. Is there anything else for now?

5 MS. PESCHEL: No, Your Honor.

6 THE COURT: Okay. We'll give you a chance to
7 rebut as well.

8 Back to plaintiff.

9 MR. OSTROW: Okay, Your Honor.

10 So on the issue that Your Honor just asked
11 about, let me start with that first. Someone of ordinary
12 skill in the art is reading the '374 patent, either claim 1
13 or claim 13. That is the patent. I've got claim 13 here.

14 Where claims are not limited explicitly to
15 densitometry, I understand the Court has to consider that,
16 but in reading them, they don't say densitometry. The
17 question is as one of skill in the art knows that we have
18 other patents that were limited to densitometry, certainly
19 there is the presumption, so the presumption has got to apply.

20 The first thing you say is, well, this is not
21 limited to densitometry. When you combine that with the
22 fact that tomographic modeling is "how," as Your Honor said,
23 and this claim is only talking about that models are created
24 using tomographic scanning, tomographic modeling, again,
25 there is no reason in this claim that says that you should

1 be limited to densitometry.

2 THE COURT: Is it correct that the specification
3 even of the '374 always says "tomographic densitometry
4 modeling" except once?

5 MR. OSTROW: I didn't do a count. There are
6 times. There is at least the once.

7 THE COURT: Could you point me to more than once?

8 MR. OSTROW: Probably, but I don't know if I
9 want to take the time right now.

10 THE COURT: The ones that we looked at, isn't
11 that just very clearly a shorthand? The word "densitometry"
12 I think is in the sentence.

13 MR. OSTROW: Clearly, that is the embodiment
14 that is being discussed. We're not disputing that. There
15 is the primary embodiment, the calculation of density.

16 THE COURT: Well, have you pointed to a
17 specification discussion of a non-densitometry related
18 tomographic modeling?

19 MR. OSTROW: In the background, when it
20 introduces it, it introduces it separate from densitometry.

21 THE COURT: Is that what you are showing me?

22 MR. OSTROW: Yes. Yes. I'm sorry. Slide 14.
23 Yes. Then there is an additional discussion of densitometry,
24 separate discussion. And there are patents referenced about
25 tomographic scanning which are incorporated by reference

1 which have nothing to do with densitometry.

2 THE COURT: I think you have acknowledged that
3 Mr. Massie didn't invent the tomographic modeling; correct?

4 MR. OSTROW: Correct, but he did invent a system
5 that would allow for the storage and the comparison of
6 tomographic models. He did invent that, and that is what is
7 captured.

8 THE COURT: Does he talk anywhere about doing
9 that for something other than densitometry models?

10 MR. OSTROW: No.

11 THE COURT: But your view is that has no legal
12 relevance or at least doesn't add up to the defendant's
13 construction because why?

14 MR. OSTROW: Because we're entitled to get
15 claims on the full scope of our invention. One of the --
16 some of the claims are limited to computing densitometry,
17 and we have claims that are not, and the ones that are not
18 limited should not be limited.

19 Again, I point out to the Court the way the
20 defendants are interpreting densitometry, it necessarily
21 requires the use of a dual energy level. Again, in the '374
22 patent, so right after that claim, claim 1 into claim 2,
23 and, again, one of skill in the art trying to figure this
24 out would look at claim 2 and say, see that the restricted
25 beam device is limited in claim 2 -- not shown here -- the

1 beam device in claim 1 is limited to dual energy level 1.

2 So, again, that is yet more confirmation that
3 claim 1 was not intended by Dr. Massie to be limited to
4 something with dual energy level which the defendants say is
5 what the patent is referring to by densitometry.

6 So, anyway, that's it on that particular point.
7 I'm going to jump around a little bit. I have some notes in
8 response.

9 Planmeca's counsel discussed there were three
10 patents that were cited incorporated by reference. It seems
11 like we discussed some in other people's patents more than
12 this one. So in any event, they're there, and they focused
13 primarily on the teachings of two of them: The reissue, the
14 36,162, and I think the inventor's name is Peck on the other
15 one.

16 But on the Gershman, I already have shown the
17 Court an explicit reference in one of the three patents
18 incorporated by reference to the fact there could be a
19 single energy level, and that is just as referenced here
20 as any of the other ones. And then as counsel went on to
21 indicate, it says that medical applications of densitometry
22 include the treatment of such bone disease -- I'm sorry.
23 There was a reference to the fact that such techniques are
24 used -- such densitometry modeling and mapping techniques
25 are used for dental applications.

1 Well, for "such" also refers to what is in
2 Gershman. It is not irrelevant. You can't just pick and
3 choose from all these other patents what is good. It is
4 there. It is just as relevant as any of the other teachings
5 of any of the other patents.

6 Again, in the interest of jumping around a
7 little bit, another issue that was raised was the issue of
8 some grammar about densitometry and that the "-metry" part
9 of that refers to the science of measuring density.

10 I think that might be more applicable if it was
11 being used as a noun, but in our patents, it is being used
12 as an adjective. So we tried to match the phraseology of
13 what it means to have -- it's not just a noun, densitometry.
14 I'm sorry. I'm trying to get to a claim here that actually
15 uses the word.

16 So it is densitometry information. It is not
17 being used in the noun sense. So we tried to phrase ours,
18 "information related to the density." So that is why we
19 phrased our definition the way we did, because the claims
20 are using it as an adjective, not as a stand-alone noun,
21 which would perhaps be more like what defendants said that
22 it is a science of something.

23 THE COURT: So "information related to the
24 measurement of density" would be inaccurate? You say
25 "information related to density" as opposed to "measure of

1 density."

2 MR. OSTROW: "Measure" might be okay.

3 THE COURT: Might be.

4 MR. OSTROW: It doesn't have to be calculated.

5 Again, there is the other issue of quantitative. Defendants
6 want to stick in the requirement that it be quantitatively
7 calculated.

8 There is no reason to be limited. Your Honor
9 has been to the dentist many times. You have seen x-rays.
10 You have seen these tomographic scans. The microprocessor
11 may or may not have calculated, or it could just be a bit
12 map image. It is the images.

13 And we showed this, I guess ties into the next
14 thing, the whole issue of whether color coding means
15 quantitative. The examples that I gave the Court earlier,
16 which I'm trying to get to here, these images, you could
17 color code it without knowing the values. This is just
18 being matched. It is just the grey-scale is being converted
19 to color. The microprocessor -- I wrote it down, but the
20 defendant says it has to know what the densities are.

21 I know we're sort of anthropomorphizing the
22 computer in saying I don't know what the microprocessor says
23 to know the density. If what they mean is it has to be a
24 table of actual values, it is not necessary for color
25 coding. It could be necessary for other things, but not

1 necessary for color coding. In fact, that is what they mean
2 by "know" -- sorry, air quotes -- "know what the densities
3 are."

4 THE COURT: I think the idea is if we're really
5 measuring density, that at some level seems to imply some
6 type of mathematical analysis. Do you disagree with that?

7 MR. OSTROW: Yes, Your Honor. The image, x-ray
8 implicitly measures density when -- there is the detector
9 array on the bottom -- right? -- that receives, is going to
10 receive different amounts of radiation, that is the extent
11 to which it is measuring, but beyond that, that can be
12 analog. The image on the left could have been created
13 through an analog x-ray.

14 THE COURT: I'll not sure where the analog
15 versus maybe digital comes in. You just said yourself
16 in just trying to shorthand describe, you used the word
17 "amounts."

18 If I understand "x-ray" from your tutorials, it
19 is some measure -- and now I'm using the air quotes -- of
20 how much of the ray gets through the differently dense
21 material in between the ray and the thing that is capturing
22 it. Doesn't that just also inherently imply some sort of
23 measurement that is the film at the end is measuring -- we
24 don't see it this way with our eyes, but it's measuring a
25 different amount of rays that got through which tells us

1 something about the different density than what is in
2 between? Isn't that all correct?

3 MR. OSTROW: That is totally correct, Your Honor.

4 THE COURT: So I'm confused I guess of what
5 the plaintiff's problem is with some suggestion that there
6 does need to be some type of calculation or something
7 quantitative underlying all this.

8 MR. OSTROW: So there was a little bit of a
9 leap. We're okay. Obviously, the technology involves
10 measuring density. There is no real dispute about that.
11 That densitometry involves the measure of science or relates
12 to the measure of densities in the sense that Your Honor
13 said.

14 That, again, if it is analog, there is not
15 necessarily any calculation of the numerical sense. There
16 is not necessarily numbers like in the grey-scale image,
17 nothing would "know" the different values, doesn't have to
18 know it. All the dentist has to do is see it. Then he
19 can make professional judgments based on that. It could be
20 color coded. The dentist can make professional judgments
21 based on that. Neither he nor the computers need to know
22 the value of the densities, but a microprocessor could, it
23 could calculate values of the densities. We're just arguing
24 that the fact that our patent discloses color coding suggests
25 that it need not -- it doesn't have to calculate it. It

1 could be quantitative.

2 THE COURT: Yes. Give me an idea of how it
3 could output something meaningful -- not just something
4 pretty in terms of colors, something meaningful about
5 density without having done some sort of calculation at some
6 point.

7 MR. OSTROW: This grey-scale could be converted.
8 I'm not using that in the sense of calculating densities.
9 This, the value, the pixel values, you can take that
10 grey-scale image, digital image. Each pixel has a value.
11 It's not density value, it is a pixel value in the computer;
12 right, Your Honor? So that could be used to convert.

13 So in that sense, yes, there are those kinds of
14 microprocessors do calculation. Everything a microprocessor
15 does involves a calculation. That is how computers work.
16 But it is not necessarily density values. It's not a
17 parameter of density values. It could be bit map images,
18 image values, so that it can be converted to something
19 colorful.

20 The point of converting to something colorful, the
21 next step in what is inventive here is the comparison. So to
22 compare two grey-scale images. So let's say -- again, I'm at
23 slide 23 for the record. If I used a grey-scale image and I
24 take another grey-scale image of another person's mouth and
25 ask the dentist to compare, it's kind of hard to see what has

1 changed. You really have to. It's very hard, but if I color
2 one of them blue and the other one green or yellow and then I
3 show them side by side or on top of each other, I allow a
4 meaningful comparison. All right?

5 So part of the advantage of the color coding, it
6 could involved calculating actual density values, but it
7 need not, but it does involve calculating something because
8 everything in a computer is performing a calculation.

9 Shall I move on?

10 THE COURT: Sure.

11 MR. OSTROW: In view of the discussion of focal
12 plane, I guess I will just let that stand.

13 THE COURT: Right. It sounds like it has no
14 implications for whether a circular tomography is involved.

15 MR. OSTROW: Right. So I don't, we don't know
16 why it has to be in the construction.

17 THE COURT: Okay.

18 MR. OSTROW: There are a lot of things in a
19 construction that doesn't have any impact. It's confusing
20 to the jury. I mean we all have spent some time reading
21 tutorials and such. Your Honor is going to have to explain
22 to the jury about focal planes. It is confusing enough. If
23 it doesn't add or eliminate anything, why have it there, I
24 guess.

25 THE COURT: But at least to the extent you were

1 concerned it was going to read out the circular tomography,
2 we now know --

3 MR. OSTROW: It just seems to be put to rest.

4 A couple last quick points. I don't have their
5 slides. I'll just reference it by number.

6 The defendants showed slide 30. I have the hard
7 copy.

8 THE COURT: I have slide 30.

9 MR. OSTROW: I have it written down as slide 30,
10 but these slides don't have numbers on them.

11 MR. WOOTEN: They didn't show up on some of the
12 copies.

13 THE COURT: Mine has handwritten numbers.

14 MS. PESCHEL: You said 30.

15 MR. OSTROW: That is what I have written down.

16 MS. PESCHEL: Yes.

17 THE COURT: Do you want to put up the
18 defendant's display?

19 (Elmo settings adjusted.)

20 MR. OSTROW: Okay. Yes, that's the one.

21 So this came up during the briefing. It's not
22 worth a lot of time, but I just want to point it out, Your
23 Honor.

24 The claims of the '301 patent say explicitly
25 that they're limited to densitometry modeling. They say

1 that. So this argument is repeating that language. But
2 this argument is not arguing that that is what makes them
3 patentable. What makes them patentable, you have to
4 continue reading the quote.

5 So the quote is: The features that Applicant
6 respectfully submits patentably distinguish Applicant's
7 invention over the prior art include the teaching of a
8 dental and orthopedic densitometry modeling system.

9 But that is not the end of it. The way the
10 defendants want to read that, that's it. That is what is
11 new. That is not what was new. What was new was utilizing
12 a microprocessor having a database -- you have to keep
13 going -- that includes a patient's unique and predetermined
14 densitometry modeling parameters for comparison to the
15 patient's present densitometry model.

16 That's what was new, the comparison. The claim
17 says densitometry modeling, arguments repeating the claim
18 language, but this argument is not saying that the
19 densitometry is what made it new. The prior art was about
20 densitometry, too. That didn't distinguish. What
21 distinguished was the comparison part.

22 THE COURT: But it is implicit in all that at
23 least the '301 patent is all about densitometry modeling;
24 correct?

25 MR. OSTROW: The claims are limited to

1 densitometry, yes. We're not disputing that. The claims
2 say that.

3 (Counsel confer.)

4 MR. OSTROW: May I have slide 33?

5 I think there was misunderstanding of what we're
6 arguing in terms of claim differentiation, and this maybe
7 bookends my rebuttal. This goes back to my first point in
8 how one of skill in the art would have read these two claims
9 and understood them.

10 We weren't arguing that the claims were
11 otherwise identical and therefore the only thing that
12 distinguished them was whether they were limited, one was
13 limited to densitometry and one wasn't. I don't think we
14 ever made that argument. The claims are clearly different
15 in a lot of ways. There is no dispute about that.

16 Our point was that one of ordinary skill in the
17 art, if they saw that we had a series of patents, and these
18 are two of them, and they saw that in claim 1 on the right,
19 the '301 patent says the system for tomographically modeling
20 dental and orthopedic densitometry, they'd say, okay,
21 clearly the "what" being modeled here is the densitometry.
22 The measurements, density measurements, that is what is
23 being modeled. Okay, I get that. And then they saw claim 1
24 of the '374, and it says: "a system for tomographically
25 modeling a dental structure" with no reference there or in

1 the claimed densitometry. They would presume to understand
2 that that is a claim that is not limited to densitometry.
3 They said, oh, these guys got a claim that is on the
4 comparison of tomographic modeling. Okay?

5 We weren't arguing that the claims were otherwise
6 identical, that's the only thing that was different about
7 them. It's just this is the way someone would read this.

8 THE COURT: Well, they would notice that there
9 were a number of differences. They might notice that was
10 one of them.

11 MR. OSTROW: Right.

12 THE COURT: So they may or may not presume that
13 the absence of densitometry meant anything and they would
14 consider it in light of the specification of that particular
15 patent; correct?

16 MR. OSTROW: Yes, I believe that.

17 THE COURT: Which doesn't talk about anything
18 other than densitometry modeling; correct?

19 MR. OSTROW: That's the "what" being modeled.
20 But tomographic modeling does not require that. The patent
21 says explicitly there is something called technique for
22 tomographic modeling. We want to apply it for our
23 embodiments as densitometry, but you can still claim the
24 use of the technology for tomographic models.

25 THE COURT: Is there anything else on these

1 three terms? These three sets?

2 MR. OSTROW: No.

3 THE COURT: Okay. Is there any rebuttal from
4 the defendant?

5 MS. PESCHEL: Brief response. I may not need
6 the clicker, Your Honor.

7 I want to focus on claim 1 of the '374 patent.

8 So what Mr. Ostrow just stood up here and told
9 you is that the inventive aspect of this patent is storing
10 and comparing.

11 When you look at claim 1 of the '374 patent,
12 if densitometry is not a part of it, it reads directly on
13 computed tomography, that claim 1 on its face would be
14 invalid.

15 Claim 1 of the '374 patent doesn't have a
16 comparing requirement. The only thing that it has is that
17 the controller must be adapted for storing those models,
18 and that the output device must be connected to the
19 microprocessor for receiving a tomographic model.

20 The patent's description of densitometry, the
21 consistent description of the invention of the densitometry
22 modeling system requires that for this claim, tomographic
23 models include that densitometry requirement.

24 THE COURT: That's it? Okay. Let's move on to
25 the next set of claims.

1 MR. OSTROW: The next claim term that we agreed
2 just to quickly -- I think this is a fairly quick one to
3 address is the tomographic modeling in 3D.

4 So there are some claim terms. We've got the
5 claims listed here. This is I guess listed as two separate
6 entries in the joint claim construction chart, 4 and 5,
7 which refer to a three-dimensional tomographic model or
8 three-dimensional digital tomographic model.

9 In our view, beyond what we have already been
10 arguing about for the last hour or so, we don't need any
11 separate construction of this. We believe that the jury
12 would understand what "three dimensional" means in this
13 context.

14 In fact, just to make the point, that even in
15 defendant's construction on these terms, that's the only
16 thing that is different from the regular tomographic
17 modeling is the introduction of 3D, and defendants just
18 use the word "three dimensional." So they're not asking the
19 Court to define what "three dimensional" is.

20 So I think the parties are in agreement, they
21 don't really need to define what "three dimensional" is, so
22 whatever the Court concludes as to what a tomographic model
23 is, we don't need a separate construction for what it means
24 for it to be in 3D. I think at this point, the jury has
25 been to movies. I think they know the difference between a

1 2D and 3D image.

2 That's all I've got to say about that.

3 THE COURT: And you agree that it is a 3D
4 digital three-dimensional image; correct?

5 MR. OSTROW: Yes.

6 THE COURT: All right. Defendants.

7 MS. PESCHEL: Just briefly, Your Honor.

8 I think that Mr. Ostrow is correct, the parties
9 agree what the model itself is has to be three dimensional.
10 The difference in our construction is that both the image
11 that is shown, the model has to be three dimensional, and
12 then you will see in red here on the bottom of slide 52, we
13 say "from two or more focal planes."

14 That is because to attach 3D to the other model
15 terms that are part of the claim language, our construction
16 says, you must use densitometry from the at least one focal
17 plane for the base model terms. For three dimensions, you
18 would need to have at least two focal planes. And so that
19 is the distinction there.

20 THE COURT: Okay. Thank you.

21 Does plaintiff agree you need at least two focal
22 planes?

23 MR. OSTROW: In view of the discussion of what
24 focal plane means and that it doesn't really exclude any
25 nonlinear ones, that is probably fine.

1 THE COURT: Right. So at this point, do you
2 oppose me adopting the defendant's construction?

3 MR. OSTROW: Everything else about it, we
4 disagree with.

5 THE COURT: Well, the rest of it I think just
6 repeats disputes that we talked about over the first hour.

7 MR. OSTROW: Correct.

8 THE COURT: But pointing out that it's digital
9 three dimensional and requires two or more focal planes,
10 those parts you don't object to?

11 (Counsel confer.)

12 MR. OSTROW: Tentatively, yes, Your Honor. I
13 may go check something with my colleague and come back with
14 it later, but I think for the moment I will say yes, it's
15 okay.

16 THE COURT: All right.

17 MR. OSTROW: The next set of terms.

18 THE COURT: Let me just ask, anything further?

19 MS. PESCHEL: No, Your Honor.

20 THE COURT: Okay. Thank you.

21 Yes, then you may move on.

22 MR. OSTROW: My colleague, Sarah Pfeiffer is
23 going to address the next set of terms.

24 THE COURT: Okay. Thank you.

25 Good afternoon again.

1 MS. PFEIFFER: Good afternoon.

2 All right. So I'll be addressing group 3 which
3 is "a controller" and "an output device." These are grouped
4 together for a reason that will become clear pretty quickly;
5 but just to give a brief introduction to the terms and the
6 proposed construction.

7 As you will see here, Osseo has proposed that a
8 controller is an understandable word. Controller is used in
9 its typical fashion in the computing world, and so the only
10 possible clarification would be to say that it is one or
11 more controllers.

12 Defendant, on the other hand, replaces what is a
13 well understood term with an entire paragraph that limits it
14 to the microprocessor that controls the positioning motor
15 and controls the storage of the claimed model.

16 Similarly, on the "output device" term.

17 Again, an output device is readily understandable
18 in the computing world. And the only possible clarification
19 would be that it's one or more. As is standard from Federal
20 Circuit precedent, that when a comprising term uses the phrase
21 "of" or "and," it is one or more.

22 Again, though, defendant has proposed a
23 construction that is quite long and really just repeats other
24 language that is in the claim, and really does so without any
25 support in the specification for importing these limitations.

1 This becomes a little more clear how unhelpful
2 the defendant's constructions are when you look at it in
3 context of the claim. For example, the claim language for a
4 "controller" goes on to specify that it's a controller with
5 a microprocessor and a memory device. But defendant's
6 construction regurgitates this same language without any
7 explanation for why that is helpful or clarifying to a jury
8 and just makes it longer. They don't offer any rationale
9 for why such extra verbiage is necessary. And they don't
10 really explain how it clarifies anything.

11 And the same is true for an "output device."
12 The claim goes on to explain that the output device is
13 connected to a microprocessor and adapted for receiving
14 model data.

15 Again, their construction goes on for quite some
16 time without adding any clarifying information that is at
17 all necessary for a jury.

18 What is clear when you look at these
19 constructions is that defendant is trying to force the
20 phrase "a microprocessor" into being a single microprocessor
21 whenever it is used in any of the claims.

22 But as we'll discuss further, that is simply not
23 an appropriate claim construction given the clear Federal
24 Circuit precedent on this point. The Federal Circuit has
25 been very clear in saying that whenever claims that begins

1 with the comprising open-ended language and then uses the
2 words "of" or "and," it should be interpreted as one or more.
3 And the Federal Circuit has gone so far as to say this is
4 best described as a rule. It's not just a presumption and
5 it is not just a convention, but it is a rule. To deviate
6 from this rule, the Federal Circuit requires that there be a
7 clear intent to limit the claim language to one single device.

8 But defendant can't identify anything in the claims
9 specification or the prosecution history that necessitates a
10 departure from this very clear-cut rule. In fact, when you
11 look at the specification, it is clear that the specification
12 contemplates using multiple controllers and multiple
13 microprocessors.

14 For example, in column 4, lines 2 through 7, it
15 specifically mentions a controller and microprocessor that
16 can comprise any number of suitable hardware devices.

17 Again, these are terms that are well known in
18 the computing industry and most, anybody of skill in the
19 art would understand that a computer system could be set up
20 using multiple controllers, multiple microprocessors, and
21 there is nothing in the specification that indicates a
22 deviation from this normal understanding.

23 The specification goes on to describe
24 embodiments that could encompass more than one controller
25 and more than one microprocessor. Again, the patent

1 mentions multiple computers and multiple memories in column
2 2, lines 22 through 25.

3 Here on slide 35, you can also see that there
4 is a disclosed embodiment where diagnostic parameters can
5 be stored in the computer's memory, and then also there is
6 another possibility for a computer to store the x-ray scan
7 path.

8 Now, this really comes into play when you look
9 into some of the figures that also disclose these same
10 embodiments.

11 Now, when you look at the figure and how it is
12 arranged, you can see that the box labeled "controller" is
13 also connected to an output device.

14 The specification goes on to state that that
15 output device could be another computer. A computer would
16 inherently have another controller and another microprocessor.
17 So that alone indicates that the patentee was using this word
18 in standard understanding within a computing context that
19 these could be connected devices and multiple microprocessors
20 and multiple controllers could perform these actions.

21 And not only that, you can see on the image here
22 that there is a red box around the three axes positioning
23 motor, it is label 10, and that is connected to the x-ray
24 equipment.

25 Now, as also disclosed in the patent, x-ray

1 equipment itself can have a microprocessor and a controller.
2 And if that x-ray equipment is connected to a positioning
3 motor, then it is possible that that x-ray equipment's
4 microprocessor or controller was controlling the positioning
5 equipment.

6 So this goes against defendant's proposed
7 construction which limits the microprocessor to one that
8 does both actions. That would exclude an embodiment that
9 is contained in the patent. Again, following general claim
10 construction principles, such a construction would not be
11 appropriate.

12 The same is true for the construction of the
13 "output device" term as well where they try to limit it to
14 not only the microprocessor, but that it is connected to
15 the memory device and the positioning motor but also the
16 input device and also the converter and is programmed send a
17 message to the positioning motor.

18 They added even more limitations onto what this
19 one particular microprocessor has to do. That is another
20 reason that these constructions aren't helpful to the jury.
21 I just want to quickly go back and look at them together.

22 Both of these constructions basically try to
23 define a microprocessor within the construction and yet
24 define the microprocessor differently. The only purpose
25 that would serve is to confuse the jury. It is completely

1 unnecessary, limits the scope to one possible embodiment
2 despite the clear disclosures indicating that it could be
3 other embodiments and multiple microprocessors and multiple
4 controllers, but it adds in this layer of apparently
5 referring to the same microprocessor and yet defining it
6 in different ways. So it just goes to show that their
7 construction cannot possibly be proper.

8 Now, defendant primarily relies on two arguments
9 that there is a clear intent to limit these terms to only
10 one, but the Federal Circuit has rejected both of these
11 primary arguments.

12 The first argument is that the figure that we
13 were just discussing shows only a box, a single box with a
14 controller and a microprocessor, but the Federal Circuit in
15 the *01 Communique Lab* case says that just because a figure
16 shows a device in a single box and some figures, that does
17 not "necessitate" a departure from this rule.

18 Again, the figures can be interpreted as
19 including multiple microprocessors and multiple controllers.
20 Nothing about that figure necessitates a departure from this
21 well-known rule in the Federal Circuit.

22 The second improper argument that they relied
23 upon is pointing to later use of words "the" and "said" in
24 the claim; but, again, the Federal Circuit has consistently
25 held that subsequent use of definite articles "of" and

1 "said" does not change the general plural rule. Rather, the
2 plural forms of those articles would apply just as it does
3 for "of" or "and." And this is because that is standard
4 patent writing practice. The Patent Office uses something
5 called antecedent basis to ensure claims are definite, so it
6 is standard practice for a patentee to use the phrase "a"
7 and then "the" when referring to the same type of device,
8 but that doesn't limit them to the same exact one.

9 Nothing that defendant has pointed to indicates
10 that the patentee here meant anything but the standard
11 patent claiming procedures, and none of the cases that
12 defendant cites dictate any other result.

13 If we look at the *Tivo* case, that involved a
14 case where a single stream was split into an audio and video
15 stream and then reassembled; and the Federal Circuit really
16 strongly talked about that "reassembling" language, why it
17 was limited to one, because it was taking one, splitting it
18 into two, and reassembling it. That was very important, and
19 without it, the claim would have been rendered meaningless.

20 The *North American Vaccine* case involved a claim
21 that didn't even use the word "comprising;" and there is no
22 dispute here all the claims here use the open-ended phrase
23 "comprising."

24 And the *Insituform* case, again, the claims
25 required, what, a discontinuous vacuum. It involved a cup

1 that helps create that vacuum, and to use multiple cups
2 would have created a continuous vacuum, so it would have
3 defeated the purpose.

4 There is no argument here that using more than
5 one microprocessor or more than one controller would defeat
6 the purpose of the invention or render it inoperable. There
7 is simply no indication in the specification that the
8 patentee meant to depart from standard patent writing
9 practices and use the open-ended phrase "of" to mean "one or
10 more."

11 To adopt defendant's construction, in
12 addition to being very confusing to the jury given all
13 the unnecessary and extra verbiage, it would essentially
14 require all patentees to use "one or more" when claiming.
15 And, frankly, that just undermines all the Federal Circuit
16 precedent that says the patentee can do otherwise.

17 So that is all I have for right now. Thank you.

18 THE COURT: So I understand the importance of
19 the rule that almost always "a" is "one or more," but it
20 doesn't seem like in this patent there is a lot of further
21 evidence that the patentee ever contemplated using multiple
22 controllers or multiple microprocessors. Did I miss something
23 or have you just shown us whatever it is you can find that
24 might support that was part of what the invention here was?

25 MS. PFEIFFER: I think, like I said, neither of

1 these terms were used in any sort of unusual manner. And
2 it was well known in science for one of ordinary skill in
3 the art that multiple computing devices to be connected to
4 create a system.

5 If you look at the language of the claims them-
6 selves, it goes to a system or it discusses an application.
7 This isn't talking about a computer or a device. That is not
8 what is claimed. It is a system, an application, and it
9 involves using the standard equipment in standard ways, and
10 that does include connecting different pieces and allowing
11 them to have different microprocessors and different
12 controllers. So without the evidence that the patentee
13 intended to depart from the ordinary understanding of these
14 terms, there is just no need to depart from the rule.

15 THE COURT: Okay. Thank you very much. We'll
16 hear from defendant.

17 Good afternoon.

18 MR. WOOTEN: Good afternoon, Your Honor. David
19 Wooten for the plaintiff, Planmeca USA.

20 I'm here on slide 53. We just showed "a
21 controller" and what patent claims it appears in. And we'll
22 jump right to the positions, the constructions that the two
23 parties have put forth.

24 As you have already heard, the primary
25 difference here is whether it is one or more. And that

1 rolls over through the "output device," which I will address
2 after I go through "a controller."

3 We do not disagree with the plaintiff in this
4 case there is a general rule that the words "a" and "and"
5 can mean plural, more than one. But there is an exception.
6 That exception is stated in *Tivo*. It is also stated in
7 *Baldwin Graphics*, which is cited by the plaintiff, and that
8 exception is where the context clearly indicates the element
9 is used in the single.

10 *Baldwin Graphics* goes on to say it arises where
11 the language of the claims themselves, the specification, or
12 the prosecution history dictate. And that is exactly what
13 we have here.

14 First, I'll skim through the claims which we
15 have seen several times today. But they claim -- and this
16 is slide 57, claim 1 of the '347 patent. They claim: a
17 system comprising a controller with a microprocessor, the
18 controller being adapted for storing computed tomographic
19 models.

20 And then tied to it in our construction is:
21 a positioning motor connected to the microprocessor,
22 responsive to the command from that microprocessor.

23 In other words, you have a controller that has a
24 microprocessor, and that microprocessor stores tomographic
25 models, and it controls the x-ray equipment positioning.

1 We can take it a step further and show how it
2 was used in the singular within this claim. Not only do
3 you have to have those two connections but -- we failed to
4 highlight this portion, but under dental structure, you will
5 see an input device connected to the microprocessor. Again,
6 this is claims 1 of the '347 patent.

7 You also have a detector array and converter
8 being connected to the detector array to said microprocessor.

9 Then, finally, the output device, we'll get to
10 in just a second, is also connected to said microprocessor.

11 And I won't belabor the point by going through
12 claim 1 of the '301 patent as shown here on slide 59. It
13 has the same types of connections, and also adds the
14 additional connection.

15 So if you walk through the claims themselves,
16 they talk about a controller, a microprocessor with multiple
17 connections coming to it from the system.

18 The specification only discloses the use of a
19 single controller with a single microprocessor. You can
20 see in Figure 1, they boxed the controller with a single
21 microprocessor.

22 In the summary of the invention, they say the
23 modeling system utilizes a controller with a microprocessor
24 and memory. An input device inputs data to the
25 microprocessor. The controller controls the operation of

1 the x-ray equipment. It's used for creating densitometry
2 models.

3 So the specification goes on repeatedly. And
4 here on slide 62, I have several excerpts that appear both
5 in the '374 patent and the '301 patent where it talks about
6 a single controller, a single microprocessor. And we can
7 read through those, if you would like, but I think we get
8 the gist.

9 Osseo cannot cite to a single instance in the
10 asserted patents that supports the use of multiple
11 controllers. Several of the things they pointed to are
12 shown on slide 63. You can see in patent '374 at column 2,
13 lines 22 through 24. They say in their briefing that
14 the availability of relatively fast computers with large
15 memories supports the use of multiple controllers.

16 But here, you will see in a minute, this is
17 actually indicative of what their actual intent was. They
18 were claiming one computer, one microprocessor that was fast
19 enough to control all of these things.

20 It really hasn't anything to do -- it doesn't
21 have anything to do with the controller. This sentence is
22 discussing the prior art.

23 You can see on the '374 patent at the end,
24 column 5, 9 through 11: The input diagnostic parameters can
25 be stored in the computer's memory.

1 It is talking about the computer's memory. It
2 is not talking about multiple computers, multiple processors.

3 The same goes for their identification of
4 column 4, lines 24 through 30. It is talking about the
5 microprocessor controlling this equipment.

6 THE COURT: Do you point to anything that
7 explicitly says you can't use multiple controllers or
8 multiple microprocessors?

9 MR. WOOTEN: I would point to the claims and the
10 multiple elements that they have tied to the microprocessors,
11 but in the specification there is no specific statement that
12 says you can't use multiple controllers.

13 THE COURT: When you look at the claims, you are
14 referencing the word "said" and the word "the" that comes in
15 after "a;" correct?

16 MR. WOOTEN: Correct.

17 THE COURT: So, first off, there is case law
18 that suggests, at least in other contexts, that is not
19 limiting in the way that you say it is. So it's not
20 automatic, at least.

21 MR. WOOTEN: I would agree. I would agree with
22 that, Your Honor.

23 THE COURT: Okay. But further in this, with
24 this technology, help me understand if you can, why, if it
25 would be, it would be inconsistent with the invention to

1 have multiple controllers or multiple microprocessors. That
2 is, couldn't those connections work just as well with
3 multiple controllers, multiple microprocessors?

4 MR. WOOTEN: I think the easiest way to answer
5 your question is to jump to something, that I have several
6 documents here. If I may approach?

7 THE COURT: Sure.

8 MR. WOOTEN: There are three documents in each
9 stack. The plan would be to walk through the facts. I'll
10 come back to this.

11 THE COURT: You can do it in whatever order you
12 want.

13 (Documents passed forward.)

14 MR. WOOTEN: I'll jump to what I handed you.

15 THE COURT: Okay.

16 MR. WOOTEN: In their reply brief, despite the
17 fact that we pointed to the fact that there is no citation
18 they can cite to that supports multiple controllers and the
19 claim language uses it singular with multiple connections,
20 Planmeca still argued we didn't show the requisite intent.

21 So in preparing for this hearing, we dug a little
22 deeper, and we found a related EPO application that came off
23 a PCT. And in that application to get over a prior art
24 rejection from an Examiner communication, Osseo argued that:
25 Furthermore, there is no teaching that the controller which

1 carries out the storing of the previous model, adjusting the
2 present model, and comparison of the two models is the same
3 controller that controls the x-ray device.

4 It went on to say: That section was found in
5 the inventive step aspect of that document which I just
6 handed the Court.

7 In the present case, the use of the same
8 controller to control the x-ray device, store pre-existing
9 models, adjust a model obtained using the x-ray device and
10 compare the pre-existing and obtained model provides a
11 significant advantage to the surgeon in that the whole
12 process can be automated without the surgeon having to
13 consult a variety of different devices.

14 So the clear intent by the same patentee to limit
15 this to a single controller, not just a single controller but
16 also a single microprocessor, later on in this document, you
17 will find where importantly the microprocessor that stores and
18 compares the pre-existing and current densitometry models is
19 the same microprocessor that controls the x-ray equipment.

20 THE COURT: So what is the relationship of this
21 European patent to the patents I have in front of me?

22 MR. WOOTEN: So the patent you have in front of
23 you is the EPO application. It's a PCT off of a U.S. patent
24 application. The U.S. patent application is U.S. 00/32905.
25 And that PCT claims already back to these patents, the

1 patents-in-suit.

2 THE COURT: So there are multiple patents in
3 this case.

4 MR. WOOTEN: Primarily the '301 is what it
5 appears to be mimicking.

6 THE COURT: So as the legal matter, is it
7 defendant's contention that if the EPO patent is limited to
8 single controller, single microprocessor, it follows that at
9 least the '301 patent must be also?

10 MR. WOOTEN: I think at a minimum, it shows the
11 intent of the patentee with what they were after by claiming
12 a single microprocessor and a single controller.

13 THE COURT: Can you point to anything in the
14 prosecution history here in the United States that suggests
15 that they had to narrow it similarly?

16 MR. WOOTEN: The controller was not addressed in
17 that aspect.

18 THE COURT: It is at least possible that they
19 were required to narrow their claims in Europe and didn't
20 have to do the same here. That is possible.

21 MR. WOOTEN: We can address that, Your Honor.

22 This is claim 1 of the '301 patent, and this is
23 the original filed claim. I'll step to the claim that was
24 pending when they made the argument.

25 But the original filed claim, you can see that

1 it has all of the same elements. So this is the first claim
2 that went into European prosecution. It matches up a
3 controller with a microprocessor, a memory device connected
4 to a microprocessor, an input device, positioning motor,
5 conversion means, and output device. So it follows along
6 the '301 directly.

7 If we skip to the claim that was pending, you
8 still have all of the same elements in the same type of
9 construction. You still have a controller, a microprocessor,
10 a memory device, a positioning motor, the memory device
11 storing the preexisting model, and a microprocessor being
12 programmed. In other words, it's under control. The x-ray
13 equipment is under control of the microprocessor.

14 Real quickly, I'll go back and hit.

15 So one of Osseo's arguments in arguing for support
16 for multiple microprocessors and multiple controllers is that
17 the x-ray equipment sitting here have a microprocessor.

18 Well, that is fine, but we're not arguing that the
19 x-ray equipment doesn't have a microprocessor but that x-ray
20 equipment has to be connected to the microprocessor of the
21 controller per the plain language of the claim.

22 So then they take a shot in their reply brief.
23 I don't know that they addressed it here today. Well, I
24 guess they did a little bit in the output device. They
25 like to point to the quote where the output device, the

1 microprocessor is adapted to receive input from one or more
2 of the devices, such as a keyboard pointing device,
3 communications link, or the computer.

4 In the briefing, they make an issue out of,
5 well, this, our construction would read out the use of
6 another computer; but our construction wouldn't reach out
7 the use of another computer, it just would make that
8 computer the output device to meet the elements of the
9 claim.

10 So we can skip on to the "output device" now.

11 Oh. Let me take a step back and address the
12 case law that they used. And for the sake of time, I'll
13 specifically focus in on the *01 Communique Lab*. All of the
14 case law cited by Osseo in support of the general rule has
15 one of two things in common: There was either an express
16 statement in the specification that one or more could be
17 needed. If we look at 02 -- or the *01 Communique Lab*, this
18 is a quote from them. This is on slide 71.

19 "More to the point, the specification also
20 discloses expressly that 'Server Computer 12' -- which was
21 the issue, a locator server computer -- 'may comprise one or
22 more computers, as is well known.'"

23 It was a specific instance in the specification
24 where they identified one or more.

25 That theme runs all the way through, avoiding

1 the lack of antecedent basis which we would not be relying
2 on here.

3 So we can walk through each one of these, but
4 here we have no statement that it can be more than one. We
5 have claims that dictate multiple connections. And then we
6 have the patentee's own statements and arguing around prior
7 art that the goal of this was to put together a system that
8 a physician could use in one device.

9 THE COURT: Statements are just in Europe,
10 though; correct?

11 MR. WOOTEN: Statements are just in Europe.

12 Okay. So the "output device" comes down to the
13 exact same type of argument. It's the "one or more
14 devices." As I have said, we would be okay with one or more
15 devices.

16 We're not arguing that they can't have more
17 than one output device. We're arguing that an output
18 device has to be connected to the singular controller or
19 the microprocessor.

20 THE COURT: That is, you are arguing there can
21 only be one controller?

22 MR. WOOTEN: We are arguing there can only be
23 one controller, but that controller need to be connected to
24 at least one output device.

25 THE COURT: But it could be connected to more

1 than one output device.

2 MR. WOOTEN: Yes. If they want to do their
3 serial application, their hypothetical that they put forth,
4 where it's connected to a computer and that computer is
5 connected to a monitor, the computer is the output device
6 for the sake of meeting the claims.

7 I think I just covered that same aspect here
8 that we have been addressing here on slide 75.

9 Again, on slide 76, we talk about another
10 computer. We're not eliminating that embodiment in our
11 construction.

12 That will be it.

13 THE COURT: So what about, you have some
14 language sort of defining what a controller is, and what an
15 output device is. Is that in dispute also?

16 MR. WOOTEN: So the language that you are
17 referring to is: "a microprocessor and a memory device
18 where the microprocessor controls."

19 I think if we were able to limit it to a
20 singular controller and a singular microprocessor, that we
21 would be ...

22 (Counsel confer.)

23 MR. WOOTEN: I think if we were to agree that
24 it was a single controller, the rest of that is part of the
25 claim language.

1 THE COURT: Okay. The same for, I forget, with
2 the "output device?"

3 MR. WOOTEN: It would be the same with "output
4 device."

5 THE COURT: So the issue is "one or more."

6 MR. WOOTEN: Yes, Your Honor.

7 THE COURT: All right. Is there anything else?

8 MR. WOOTEN: That's it.

9 THE COURT: Any response from plaintiff?

10 MS. PFEIFFER: First, I want to address the
11 new evidence that was not provided to plaintiff in advance
12 of this hearing or in conjunction with the joint claim
13 construction statement, the exchange of extrinsic evidence
14 and intrinsic evidence, or at any point during briefing. We
15 object to the inclusion of this new evidence. If the Court
16 is inclined to consider it, we would request a brief to
17 address it.

18 I will address it briefly right now but I just
19 wanted to --

20 THE COURT: I will give you a chance to respond
21 in writing, too, but anything you can tell me now would be
22 helpful.

23 MS. PFEIFFER: Sure. So as an initial matter,
24 proceedings before the European Patent Office are of little,
25 if any, relevance. The rules and laws in the European

1 Patent Office are different. If you look at the claims
2 that defendant also distributed, the claims are completely
3 different anyway, so whatever art they were trying to
4 overcome in that proceeding involves different claims and
5 again different laws. Even other U.S. applications, if
6 related, are considered only tangentially relevant at best.

7 So the application of a European Patent Office
8 interpretation is really, it's just not at all a clear
9 indication of what was happening in the U.S.; and it could
10 not be, you know, the clear intent and disclaimer that
11 is really required to limit a claim that uses the phrase
12 "comprising" to just a single one.

13 And we can address this more fully in writing
14 since we just received it this morning.

15 THE COURT: I'm not familiar with it myself, but
16 it seems it is along the lines that the U.S. law requires
17 in terms of that level of clarity in order to overcome the
18 general rule that they would mean "one or more." Did it
19 strike you that way? Maybe you are familiar with this or
20 maybe you are not.

21 MS. PFEIFFER: I'm not sure what the rules are
22 in Europe as far as that goes and frankly just haven't had
23 the time to take a look at it to offer you a really fair
24 analysis.

25 THE COURT: The point is we haven't seen

1 anything in connection with the patents-in-suit that has
2 the level of clarity of, hey, I'm limiting this to one
3 controller, for instance.

4 MS. PFEIFFER: You're right. I agree there is
5 absolutely no such statement or indication at all in these
6 patents. And, in fact, I want to now just move back to the
7 patents that are at issue in this case and focus on some
8 disclosures where it actually is clear that the applicant
9 did include multiple microprocessors.

10 (Elmo settings adjusted.)

11 MS. PFEIFFER: It's a little tough to read
12 still, but if you look at column 4, in particular.

13 THE COURT: We're at the '374.

14 MS. PFEIFFER: The '374 patent, column 4. You
15 will see that it states -- again, I included this in my
16 original presentation -- but the microprocessor and memory
17 device can comprise any number of suitable hardware devices.
18 And that is at lines 5 to 6.

19 And then it also goes on to say: In addition
20 to various programmable logic devices and special purpose
21 microprocessors, general purpose commercially available
22 personal computers can be used as the controller as well.

23 So this section alone indicates a clear intent
24 to use standard computing practices and interpret these as
25 one or more devices.

1 So contrary to defendant's assertion there is
2 nothing in the patent to indicate that more than one was
3 included, that right there demonstrates there was.

4 Not only that, there was the Gershman reference
5 that was incorporated by reference that we talked about
6 before where in Figure 24, it discloses x-ray equipment with
7 a microprocessor and a controller.

8 And, again, defendant's construction read out a
9 very specific embodiment. There is no reason that as the
10 output device, the computer couldn't also control storing.
11 And if that embodiment were implemented, then the controller
12 shown in the red box in 4 would control the positioning
13 motor below it, and then another computer would control the
14 storing.

15 So if they are excluding an embodiment and then
16 flying in the face of the disclosures in the specification,
17 that clearly indicates that more than one is possible for
18 both microprocessors and controllers.

19 This really continues a theme of the defendant's
20 claim construction propositions, which is importing
21 limitations and limiting the claims to a single embodiment
22 when that is not an appropriate tool of claim construction.
23 Patentees are entitled to the full scope of their claim and
24 limiting the claims just to one embodiment is improper.

25 Really, what this appears to be is a backdoor

1 attempt to construe "microprocessor," and it is unclear why
2 they didn't propose that as the term if that is what they
3 believe needs construction.

4 When we go back to their proposed constructions
5 for these two terms, as I noted, there is a lot of unnecessary
6 verbiage, and they offered absolutely no support.

7 THE COURT: I think today they dropped it.

8 MS. PFEIFFER: So, again, it is curious as to
9 why this is the approach they used. It appears to be trying
10 to skirt the very clear Federal Circuit rule that "a" should
11 be interpreted as "one or more."

12 Just as a final note, even though I have
13 identified several embodiments and disclosures in the patent
14 that indicate an intent to include multiple controllers and
15 multiple microprocessors, the Federal Circuit has also clear
16 that without a clear indication, ambiguity is hardly
17 evidence of the clear intent necessary.

18 So despite the fact that this patent uses
19 standard antecedent basis claim language, "a" followed by
20 "the" and obviously discloses, contemplates using multiple
21 microprocessors and controllers. They just have not risen
22 to the level to depart from this rule.

23 THE COURT: Okay. Thank you.

24 Rebuttal?

25 MR. WOOTEN: Just briefly, Your Honor.

1 The passage in column 4, lines 5 through 6,
2 is not any different than the passage that we read to you
3 talking about the availability of fast computers. They're
4 talking about the prior art, and what you could do with
5 that prior art. It's not specifying what could be the
6 controller. When you go through the specification and
7 description of the invention, they can't point to a single
8 instance where they use more than one controller or more
9 than one microprocessor.

10 As to the output device being able to store the
11 tomographical models, our construction doesn't permit that.
12 What has to happen is the controller has to have a
13 microprocessor that can store the tomographical model. If
14 they want to output that to the output device, if they want
15 to send that to the output device and the output device
16 stores it, there is nothing in our construction that
17 prevents that.

18 With respect to the documents produced today,
19 we're happy to answering any briefing that gets ordered,
20 but it's a patent that belongs to the plaintiff that wasn't
21 disclosed to us and was found in preparation for this hearing.

22 THE COURT: It is true that the background here,
23 though, is there is the reference in column 4 to multiple
24 computers. There is references in the patents to systems
25 and applications. I assume it is not disputed it was

1 understood that systems could have multiple computers and
2 the rule of patent drafting is that "a" means "one or more."

3 MR. WOOTEN: Correct.

4 THE COURT: That is an awful lot to overcome.

5 MR. WOOTEN: I agree, Your Honor. But it does
6 happen in exceptions, and that rule is generally followed
7 when there is an express disclosure, either an antecedent
8 basis issue or there is a specific instance where it says
9 we're going to use more than one. At best, you would argue
10 that it's ambiguous through.

11 THE COURT: If it's ambiguous, you lose, don't
12 you?

13 MR. WOOTEN: Not provided we get to use the
14 intent, and the claim language itself.

15 THE COURT: Well, I guess if the intent was
16 ambiguous, then I think I have to rely on the general rule,
17 don't I? You need a clear intent that they wanted to do
18 something other than rely on the rule.

19 MR. WOOTEN: We need clear intent that they
20 intended to limit it to the singular.

21 THE COURT: Okay. Is there anything else?

22 MR. WOOTEN: Nothing.

23 THE COURT: All right. We're going to take it
24 a short recess. Plaintiff has about 14 minutes left and
25 defendant about 44 minutes left.

1 If you could, and I'll give you a chance later
2 if you don't have time now, but if you could confer on what
3 it is the plaintiff wants to do with supplemental briefing
4 in terms of length, and when you want to get it to me, and
5 if you oppose the defendant having a chance or not, we'll
6 talk about that later.

7 We will be in a short recess.

8 (Short recess taken.)

9 * * *

10 (Proceedings reconvened after recess.)

11 THE COURT: Have a seat.

12 We'll move on to the next term.

13 MR. OSTROW: Before I move on to the next set of
14 terms, I just want to let Your Honor know what we worked out
15 among ourselves.

16 THE COURT: Okay.

17 MR. OSTROW: If you want to do that now?

18 THE COURT: Sure, go ahead.

19 MR. OSTROW: What we decided is that once the
20 hearing transcript comes out, plaintiff will have 14 days
21 from the date the hearing transcript is available to file a
22 five page brief on this issue of the European prosecution.
23 Then defendants will have 14 days from that to submit a five
24 page briefing response.

25 THE COURT: If you want the opinion in 60 days,

1 which is what I'm trying for, 14 and 14 seems like a lot.

2 Do you really need that long?

3 MR. OSTROW: The main issue is the transcript.

4 Once the transcript is out --

5 THE COURT: Right.

6 MR. OSTROW: -- we probably don't need 14.

7 Shorten that to 10.

8 THE COURT: I understood you saying 14 from when
9 you get the transcript.

10 MR. OSTROW: Right. We can go 10 and --

11 MR. QURESHI: A week is fine for us.

12 THE COURT: Can you do seven?

13 MR. OSTROW: Seven and seven.

14 THE COURT: Okay.

15 MR. OSTROW: Yes.

16 THE COURT: All right. Seven and seven from
17 when you get the transcript.

18 MR. OSTROW: Thank you, Your Honor.

19 In view of the limited time we have left, I'm
20 going to speak both faster and less.

21 THE COURT: Okay. Until the court reporter
22 tells you to slow down.

23 MR. OSTROW: I'm sure he will let me know.

24 THE COURT: Yes.

25 MR. OSTROW: So we decided to address what we

1 call the "comparing" terms and the "means for comparing"
2 together.

3 It is relatively straightforward. The
4 "comparing" terms refer to this language across different
5 claims. It's in the briefing about the controller being
6 adapted for creating, storing, and comparing tomographic
7 models. And this is the issue of comparing the particular
8 existing model with the patient's current model and so
9 forth.

10 Your Honor has seen the constructions. We,
11 plaintiff, don't think the terms need to be construed
12 because it is using standard words that we think the jury
13 would find understanding.

14 "Creating," "storing," and "comparing" I believe
15 are verbs that the jury can understand. And, in fact, I'm
16 not sure that defendants disagree because they use those
17 terms in their definition, their construction as well.

18 So the claim says: "said controller being
19 adapted for creating, storing, and comparing."

20 And the defendants want to construe it as "the
21 controller/computer must be capable of creating, storing and
22 comparing."

23 So that, at least that portion of it, there is
24 no -- I think they agree with us that no construction is
25 necessary because they just use the words and they don't

1 construe it.

2 The issue is they seem to want to put an
3 additional limitation into this as well. And these are
4 starting to look like the same limitations we have been
5 addressing all day, so thankfully I don't need to readdress.

6 One of them is this issue that the comparing
7 must be comparing quantitative data. So we have that
8 quantitative data issue again which we discussed before.

9 If, by quantitative data, we meant that it is
10 digital and it is data that the computer can work on like
11 those images like pixels in a map, that might be okay. I
12 don't think it gets us anything because it's a computer
13 doing -- it's a comparison being done on a computer. So
14 it's inherent and necessary that there be this data to
15 represent images, but beyond that, it might be okay if that
16 is what that means. If it's referring to something much
17 more specific about density, then we disagree for the
18 reasons that we have discussed before.

19 And their construction implicitly says that the
20 said controller, they seems to be suggesting that same one
21 controller issue, which I am not going to step on that one,
22 except to say that that reference in column 4 that
23 Ms. Pfeiffer references is not in the prior art. That is
24 our invention, that column 4 reference, for the record.

25 The second thing here is there is one claim

1 that has a means for comparing. We don't think this is a
2 hard one. We see this as a 112, paragraph 6 means plus
3 function element. The function is laid out in the claim.
4 It's comparing the pre-existing tomographic densitometry
5 to a current one. And the structure/algorithm is what the
6 patent says it is.

7 So in the patent itself, there is a description
8 of how diagnostic parameters related here on slide 47. And
9 I will take my time reading it. I don't want to.

10 But basically you have the data that represents
11 a prior tomographic densitometry model. And then the
12 procedure is laid out here in paragraph 5, lines -- sorry,
13 column 5, lines 6 through 21, which include the fact that
14 the new images created and the old one is retrieved, and the
15 two of them are compared in memory.

16 THE COURT: Is there anything about how they're
17 compared?

18 MR. OSTROW: It's open as to that. There is
19 nothing more specific than that.

20 THE COURT: So just one of skill in the art
21 would know what they were looking at?

22 MR. OSTROW: In comparing computer images. Yes,
23 Your Honor.

24 THE COURT: And who is one of skill in the art
25 at least for the '301 patent?

1 MR. OSTROW: I don't think we're proposing
2 anything unusual. I don't think -- I have to pull up my
3 brief to see if we list it. But basically someone with
4 probably a degree in academics, a bachelor's degree in
5 computer science, electrical engineering, one of those
6 fields, with a couple of years of work, relevant work
7 experience, preferably in something related to imaging
8 presumably or at least in that general field.

9 THE COURT: Did they have to have experience
10 with comparing densitometry models?

11 MR. OSTROW: I don't think so. It's computer
12 images. I don't think you have to have that specific
13 experience.

14 THE COURT: I guess I'm just a little confused
15 as to how they would know. For instance, let's say the
16 embodiment was dentistry. Would they not have to know,
17 since the patent doesn't tell us, how to compare image 1 to
18 image 2?

19 MR. OSTROW: The images are computer digital
20 images. So if they had the basic knowledge of one of
21 ordinary skill about if you had two images, how would you
22 compare the data in the images, that is all that is. That
23 is what is going on here. No special comparison that
24 requires an expertise in densitometry to figure out.

25 THE COURT: Okay. Thank you.

1 MR. OSTROW: All right. So that's it on that
2 one.

3 THE COURT: All right. We'll hear from
4 defendant.

5 MR. WOOTEN: I think we can kind of cut to the
6 chase on this.

7 The difference between the two constructions is
8 primarily directed at Osseo's attempt to include side-by-side
9 images being displayed and arguing that that is comparing, or
10 overlaying those two images where the specification and the
11 claims walk through a computer generated model being compared.
12 Well, actually it says diagnostic parameters. There is no
13 actual comparison of model to model disclosed.

14 I think we can jump to, let's go with "means for
15 comparing."

16 There is no statement in the specification how
17 to do the comparing. So they choose the language "means for
18 comparing," and they have already come up here and said
19 there is no direction for how to make that comparison.
20 They're relying on one of ordinary skill in the art. That
21 is indefinite.

22 THE COURT: Well, why isn't the algorithm that I
23 was pointed to not enough to tell you here is what you do?

24 MR. WOOTEN: The algorithm here in figure 2?

25 THE COURT: It was at column 5, so I think it is

1 correct.

2 MR. WOOTEN: This is the algorithm. It says
3 compare diagnostic parameters.

4 THE COURT: Your view is that is not enough.

5 MR. WOOTEN: That is not enough. There is
6 nothing in the specification that gives you any algorithm,
7 methodology, procedure for making a comparison.

8 So if you look at our construction, we have
9 already gone over this, whether the densitometry data has to
10 be digital data, but they're making the comparison with the
11 microprocessor. I don't think that is in dispute. And
12 then that is getting output to some type of display device
13 or output device.

14 THE COURT: Well, I know we went over it, but
15 maybe I missed. By quantitative data, does your side mean
16 something other than what Osseo says they're comfortable with?

17 MR. WOOTEN: There has to be a correlation of
18 data from the pre-existing model. And we're talking about
19 the "comparing" terms, not the indefinite means for at this
20 point.

21 There has to be a definition. There has to be
22 a correlation on a point-by-point type of comparison for
23 them to generate a differential between the two sets of
24 diagnostic parameters that they're looking at, the
25 pre-existing set and the current set. It can't merely be

1 I'm going to make this model, and then I'm going to display
2 it, and then I'm going to make another model and I'm going
3 to display it. That is the part that we have a disagreement
4 on.

5 THE COURT: Right. Okay. But here on the
6 "comparing" term, you have "comparing quantitative data,"
7 which I understand to be the same aspect of the dispute that
8 we --

9 MR. WOOTEN: There is a numerical comparison
10 between the two models.

11 THE COURT: But by numerical comparison, do you
12 mean something more than just all computers operate on bits
13 and zeros and ones or is it something more than that, that
14 you would have me say?

15 MR. WOOTEN: I think our position would be that
16 it is something slightly more than that. There has to be
17 some calculation, numerical calculation of a difference
18 between the pre-existing set of parameters and the current
19 set of parameters.

20 THE COURT: Okay.

21 MR. WOOTEN: I can walk through all of the
22 microprocessor comments, but I think we have hit most of
23 them today.

24 On the "means for comparing." Our position is
25 that it is indefinite. If the Court determines it is not

1 indefinite, that there is some aspect provided there that
2 gives you structure as to what the comparison should be,
3 our proposed structure mimics the specification in detail
4 whereas Osseo's position introduces tomographical model
5 which is not what is being compared for the specification.

6 A first and second session, those are already
7 in the claim terms. So we mimicked it pretty much verbatim
8 from the spec and it included the first and second energy
9 bands being used to create densitometry model.

10 THE COURT: Is there anything else?

11 MR. WOOTEN: That's it.

12 THE COURT: All right. Rebuttal.

13 (Elmo settings adjusted.)

14 MR. OSTROW: Just one point about that, Your
15 Honor.

16 They just said something completely
17 inconsistent. On the one hand, they said the "means for
18 comparing" is indefinite because the patent doesn't disclose
19 any particular type, yet they determine that the comparing,
20 the other comparing steps must be limited to one particular
21 type because they just said that the patent -- they, their
22 position is the patent doesn't disclose one particular type.
23 So where are they getting this other type?

24 It is only because that is not what their system
25 does. That is clearly the only rationale that they can have

1 for coming up and saying, well, there is no disclosure of
2 what type of comparing, but it has to be this one thing
3 about a differential between numerical values, that must be
4 that their system doesn't do that. It is inconsistent
5 positions.

6 THE COURT: Is there anything else?

7 MR. OSTROW: Not on that one.

8 THE COURT: On either of these "comparing" terms.

9 MR. OSTROW: Correct. I'm going to move on.

10 THE COURT: Okay. Is there anything in response
11 to that?

12 MR. WOOTEN: Just briefly, Your Honor.

13 THE COURT: Sure.

14 MR. WOOTEN: Our position are not inconsistent.

15 We have a conversion on "comparing" that is specifically
16 outlined in there or you get "comparing means." They have
17 to provide structure for what the "comparing means" means
18 differently than "comparing." If they wanted to use
19 "comparing," they could have used "comparing."

20 The other thing I would like to point out
21 is earlier today, they stood up here and told you that
22 "comparing" was the heart of their invention and now they're
23 expecting everybody to say one of ordinary skill in the art
24 would understand how to do it.

25 THE COURT: Thank you. Do you want to move on?

1 MR. OSTROW: Yes, Your Honor. The next term to
2 be construed is the "conversion means." This only appears
3 in the '301 patent, claim 1.

4 I hesitate to take a lot of time on this, but
5 basically in our view, a "conversion means" is sufficient
6 structure to overcome the presumption; that the fact that
7 the word "means" is used is that Section 112, Paragraph 6
8 applies.

9 The patent talks about a converter, so this is
10 "conversion means." This is basically the same thing.

11 In fact, I think the '374 patent claims a
12 converter for converting, but no one is alleging that is
13 a means plus function. So in our view, conversion means
14 has sufficient structure to overcome the presumption, but
15 if not, we have laid out what we think this relates to.

16 I guess the main difference is that defendant
17 want the "conversion means" to include the merger device. I
18 think that is correct. Yes, a merger device.

19 So their instruction includes the merger device.
20 I think it is just an unnecessarily narrow reading.

21 In figure 1, for example, which I know we
22 spent some time on in terms of the number of these devices,
23 the A-to-D converter, that is the thing that does the
24 converting, it's connected to the microprocessor through
25 another device but it is connected. That is a proper way

1 of saying connected is the lines from 20 back to 6, the
2 microprocessor.

3 And in some embodiments, there is a merging
4 device there. And there is a dependent claim that says
5 there is also a merger device, but that doesn't have to be
6 part of the -- it doesn't perform part of the function of
7 converting as claimed and, therefore, is not the structure,
8 is not properly pointed to as structure for the conversion
9 means, assuming it is interpreted as a means-plus-function
10 element.

11 So other than that, it has been briefed already,
12 so I will just let that stand.

13 THE COURT: All right. Then I will hear the
14 response.

15 MR. WOOTEN: Yes, Your Honor. I'll be brief.

16 So the first dispute is whether it is
17 means-plus-function.

18 Osseo's position is "conversion means" connotes
19 sufficient structure to tell you what it is.

20 The conversion means, if you look at the actual
21 claim language, "for converting a signal from said detector
22 array, ... connected to said detector array as to said
23 microprocessor."

24 So the only structure provided there is the
25 connections to the detector array and microprocessor. It

1 doesn't have anything to do with converting the signal.

2 The other thing I would point out is patentee
3 knew how to say "converting" but they chose to use
4 "conversion means" in this particular claim. So we would
5 argue that 112(6) applies.

6 And then we'll move on down to what this
7 "conversion means" is doing. It is converting analog
8 output to the detector -- of the detector array to a digital
9 signal. It then sends that digitized information to be
10 stored in the computer's memory.

11 The real crux of this is how, what format those
12 signals have to be in. The specification, we'll cite '301
13 here on slide 92, at column 4, 32 to 37, requires analog
14 signals from the detector array that are output to the
15 A-to-D converter, digitized, transmitted to a merger device
16 for merging formats suitable for processing and analyzing by
17 the microprocessor.

18 So the data that has to come from the conversion
19 means to the storage as claimed in claim 4 requires that it
20 be in a specific format, specific for being able to be
21 analyzed for development into the model.

22 I will skip over to ...

23 THE COURT: So if it has to be in that specific
24 format, is that why we need the merger device?

25 MR. WOOTEN: Yes. We need the merger device to

1 put it -- when you get a dual band, a dual energy band, that
2 has to be merged before it could be formatted into the model.

3 THE COURT: And so the merger device becomes
4 necessary structure because otherwise the dual band can't be
5 read or stored where it needs to be?

6 MR. WOOTEN: The data can be stored, but it can't
7 be analyzed and used for a tomographic densitometry model.

8 THE COURT: Which is what has to happen in the
9 claim?

10 MR. WOOTEN: Yes, Your Honor.

11 THE COURT: Okay. Thank you.

12 I'd like to at least hear the response on the
13 "merger device" why, if the presumption is not overcome, why
14 is the merger device not part of a necessary structure.

15 (Elmo settings adjusted.)

16 MR. OSTROW: Because the function -- I'm just
17 reading going based on the function of the claim. So the
18 function of the claim is -- let's see if I can find the
19 slide on it.

20 Well, it's claim 1 of the '301. It is
21 conversion means for converting a signal from said detector
22 array.

23 The fact of the connection is not part of the
24 function. That's a structural component, it's a system.
25 The claim is telling you what the conversion means is

1 connected to. It's connected between the detector array and
2 the microprocessor.

3 That's not a function. The function is
4 converting signals. The thing that converts the signals is
5 the A-to-D converter. The merger device doesn't convert
6 signals. It's not a requirement for converting signals.

7 If the function said, conversion means for
8 converting a signal from said detector array and making it,
9 putting it in a format that is suitable for, so on and so
10 on, just like the spec portion that was just read, that
11 would be the function. That's not the function.

12 THE COURT: So that ultimately has to happen to
13 practice the claim, but it's not part of the function that
14 conversion means is performing. Is that your view?

15 MR. OSTROW: Yes.

16 THE COURT: So the formatting, the merging the
17 signals is something that does have to happen, but it's not
18 done by the conversion means.

19 MR. OSTROW: Right.

20 THE COURT: Okay. Is there anything else?

21 MR. OSTROW: Not on this one.

22 THE COURT: Okay. Is there any response?

23 MR. WOOTEN: Just a short rebuttal.

24 We would -- our position would be that having a
25 connection to a microprocessor into the detector array is

1 not a structure of the converter.

2 THE COURT: Okay. Do you want to move on.

3 MR. OSTROW: He said it was a structure of the
4 claim of the system, not the converter. That's just to
5 clarify.

6 The next one is the "merger device."

7 And this is in claim 4. So this is in a
8 dependent claim where the conversion means include a merger
9 device. So in that one, it says it is. It is explicit.

10 And this one, either -- it's not written here,
11 it may not even need construction because it's a device that
12 merges data, but if we're going to construe it, it's "a
13 device that merges data output from a plurality of
14 tomographic scans."

15 And the support from this is basically from the
16 specification: The densitometry output is digitized and
17 merged to provide a tomographic model.

18 I just very quickly want to address earlier, way
19 earlier, it seems like a long time ago but maybe an hour
20 ago, defense counsel raised the issue we were using the word
21 "scan" to refer. They objected to our use of the word "scan."

22 It is noun sense. We didn't think it was
23 terribly controversial. People in the jury will understand
24 if they had a scan, they got an x-ray, they had a scan. The
25 scan is the data that represents the scan.

1 If the Court is uncomfortable referring to it in
2 that way, it's fine to refer to it as data, or the like, but
3 we thought this was something that made this a little bit
4 more accessible to the jury and was consistent with how it
5 is used in the patent.

6 But in any event, the merger device, the
7 function of that is pretty clear from the patent itself.
8 And I think I'll just stand on that.

9 THE COURT: Okay. I'll hear from defendant.
10 (Elmo settings adjusted.)

11 MR. WOOTEN: So the crux of this issue is the
12 difference between the two constructions. They want to
13 introduce "tomographic scans," which is not a term used by
14 the patents with respect to what is being sent to the merger
15 device.

16 The other part of that construction that was
17 in issue for us was the digitized -- the merger digitized
18 signals. I think we have agreed they're digitized signals
19 at this point.

20 THE COURT: I'm sorry. You agreed to what?

21 MR. WOOTEN: We have agreed that what is being
22 converted is a digitized signal. So what comes out of the
23 A-to-D converter is a digitized signal.

24 THE COURT: Okay. Is that agreed to?

25 MR. OSTROW: Yes, Your Honor.

1 THE COURT: All right.

2 MR. WOOTEN: So the real issue is what is being
3 merged. What is being merged are the digitized signals from
4 the high and the low dual energy scans, x-ray scans.

5 And if we can refer to slide 98 here where
6 their construction erroneously adds "tomographic scans,"
7 our accurately reflects the spec. And we have a cite here
8 at the '301 patent, column 5, 16 through 21, where it
9 specifically says the x-ray equipment then traverses the
10 preprogrammed scan path, and the first and second energy
11 band steps are repeated until the scanning procedure is
12 complete and then the digitized detector array output is
13 merged.

14 That would be it.

15 THE COURT: That's it? Okay.

16 Is there any response?

17 MR. OSTROW: No, Your Honor.

18 THE COURT: No. Okay. You have two minutes
19 left. Did you want to argue anything else?

20 MR. OSTROW: I have one more.

21 THE COURT: Okay.

22 MR. OSTROW: It's a minute and 45 seconds worth,
23 so I will take about 15 second for rebuttal.

24 The last term is "a means for storing a
25 pre-existing model."

1 It's computer memory. That's the structure.
2 Everyone agrees this is a 112, paragraph 6 claim element.
3 It's a means-plus-function element. We seem to agree upon
4 what the function is.

5 The structure is computer memory. It says it a
6 bunch of times in the specification.

7 We have it here on slide 54 that the data is
8 stored in the computer memory, computer's memory device.
9 Digital memory device, but it's the computer memory device.
10 That's the structure.

11 But what we don't agree in the defendant's
12 construction is that the structure would include a program.
13 Computers don't have to have special programs to store data.
14 That is the computers need to know how to do that. There is
15 no program that a controller has to store some special kind
16 of data. It is not part of it.

17 Anyway, I'll stand on that.

18 THE COURT: Okay. Thank you.

19 MS. PESCHEL: Your Honor, I submit the computer
20 hardware by itself is not sufficient to store anything. It
21 must be programmed.

22 So the issue here, let's look at the claim
23 itself. If we look at the '301 patent, claim 1 on slide
24 101, the controller with a microprocessor and a memory
25 device.

1 The memory device is the hardware, but it also
2 requires that the controller include means for storing a
3 pre-existing tomographical dental/orthopedic densitometry
4 model.

5 So the difference between our construction and
6 their construction: Their construction is computer memory.
7 Ours is a program for storing in computer memory the very
8 specific models claimed. And that gives meaning to the
9 "means for storing" limitation. If memory device is simply
10 your computer memory, there is no need for the "means for
11 storing" limitation, so the intent of Planmeca's proposed
12 construction is to get some meaning to that.

13 When you look at the patent specification, of
14 course, it talks about the hardware components, including
15 the memory device, which is memory device 7. And it says,
16 well, those hardware components can be programmed in any
17 suitable manner.

18 So what we're submitting here is that the
19 claimed model, that indeed the computer memory must be
20 programmed to be able to store these very specifically
21 claimed models.

22 THE COURT: You saw multiple references to
23 computer memory in the specification. Are they all closely
24 followed by reference to the programming?

25 MS. PESCHEL: No, but they are tied to the

1 hardware component of the memory device.

2 THE COURT: Is there anything else?

3 MS. PESCHEL: No, Your Honor.

4 THE COURT: No. Okay. You still have time for
5 rebuttal, if you want it.

6 MR. OSTROW: Just to clarify. What I was saying
7 earlier a controller, a microprocessor has some code in it,
8 instructions that are used to push things into memory like
9 tomographic model.

10 But the problem is that this construction of
11 theirs suggests a program as if there is some special
12 program you have to find beyond that, beyond this what comes
13 with your computer when you buy it. So that's the problem.

14 THE COURT: If I'm adopting your construction,
15 it encompasses in the structure everything that generally
16 comes with your CPU that allows the hardware to store
17 something?

18 MR. OSTROW: Yes.

19 THE COURT: Okay.

20 MR. OSTROW: Thank you, Your Honor.

21 THE COURT: Is there anything else?

22 MS. PESCHEL: No, Your Honor.

23 THE COURT: No. Okay.

24 I think we have gotten all the disputed terms

25 (Attorneys nod "yes.")

1 THE COURT: Great. I'm seeing nods. The
2 defendants will give back their half hour if you don't need
3 it for anything.

4 MS. PESCHEL: Yes, Your Honor. We'll give back
5 our time.

6 THE COURT: Okay. Thank you. So thank you for
7 the helpful argument. We'll take this all under advisement.

8 We'll wait for submissions over the next couple
9 of weeks. And thank you for the argument. We will be in
10 recess.

11 (Claim construction hearing ends at 3:47 p.m.)

12
13 I hereby certify the foregoing is a true and accurate
14 transcript from my stenographic notes in the proceeding.

15 /s/ Brian P. Gaffigan
16 Official Court Reporter
17 U.S. District Court
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