IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
LUFKIN DIVISION

ANASCAPE, LTD.	§	
	§	Hon. Ron Clark
Plaintiff,	§	
	§	
v.	§	Civil Action No. 9:06-CV-00158-RC
	§	
MICROSOFT CORPORATION, and	§	
NINTENDO OF AMERICA, INC.,	§	
	§	
Defendants.	§	

DEFENDANT MICROSOFT CORPORATION'S BRIEF IN SUPPORT OF ITS PROPOSED CLAIM CONSTRUCTION FOR THE PRESSURE-SENSITIVE VARIABLE-CONDUCTANCE (PSVC) PATENTS ASSERTED ONLY AGAINST MICROSOFT

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I. INTRODUCTION

In all the PSVC Patents discussed in this Brief,[1] Mr. Armstrong describes his alleged "invention" as using sensors with "pressure-sensitive variable-conductance material" (PSVC material). Following is just one example of his statements:

> The ***present invention*** involves the use of structures (pressure sensors) having ***pressure-sensitive variable-conductance material*** across proximal circuit traces in order to provide variable output.

('991 Patent, 2:59-62 (emphasis added throughout this brief unless otherwise noted).) The public is entitled to take Mr. Armstrong at his word. Indeed, one of the primary functions of a patent document is to give the public notice of what has the patent covers. Accordingly, the law does not allow Anascape to broaden these patents beyond the limits of what the patents themselves describe as the "invention." Thus, the claims of the PSVC Patents should be construed to include Mr. Armstrong's PSVC material. Microsoft's proposed constructions adhere to this claim construction principle, and to the statements made by Mr. Armstrong in his patents; Anascape's proposed constructions do not. This is the core claim construction dispute between the parties on the PSVC Patents.

So what is this PSVC material that Mr. Armstrong described as being part of his "invention"? The Federal Circuit's *Phillips* decision requires the Court to look to the description in the patent specifications for the answer. In this case, the PSVC Patents' specifications are very clear. Mr. Armstrong specified exactly what he meant by "pressure-sensitive variable-conductance material" by describing that material, and by referring to an earlier patent to Mitchell[2] for further description. When taken together, the PSVC Patents and the Mitchell

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[1] The '084 Patent, the '802 Patent, the '886 Patent, and the '991 Patent.
[2] This patent is U.S. Patent No. 3,806,471. It is attached as Ex. 1, and is referred to herein as the Mitchell Patent.

Patent reveal that "pressure-sensitive variable-conductance material" consists of a relatively thick "pill" of elastomer. The "pill" has an internal conductivity through its thickness that changes due to a volume effect. Specifically, as pressure on the PSVC material increases, the elastomer compresses, and this compression increases the ***internal conductivity through the material***. As a result, the conductivity through the sensor increases. This comports with the ordinary meaning of "pressure-sensitive variable-conductance material"—as the pressure on the material changes the conductivity of the material itself varies.

This PSVC material stands in contrast to another common type of material described in an earlier patent to Yaniger.[3] The Yaniger material is a thin resin film that is sprayed or painted on mylar as a liquid. When it dries, this thin film of Yaniger material does not compress and it does not change conductance with pressure—but it can be used to make a variable output sensor. Specifically, the material has micro-protrusions, like sandpaper. In such a sensor, as pressure on the material increases, the surface area of contact between the micro-protrusions and the conductive elements of the sensor also increases, thereby increasing the overall conductivity through the sensor (not the material).

The PSVC Patents only describe the Mitchell-type PSVC material, not the Yaniger-type non-PSVC material. Accordingly, under *Phillips* and other Federal Circuit cases that have followed it, the claims of the PSVC Patents are limited to the Mitchell-type PSVC material that they describe.

Because Microsoft's proposed constructions of the PSVC-related terms and the other disputed terms stays true to what Mr. Armstrong told the public in the PSVC Patents, this Court should adopt Microsoft's constructions.

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[3] U.S. Patent No. 5,296,837 (attached as Ex. 2) is referred to herein as the Yaniger Patent.

II. THE LAW RELEVANT TO CLAIM CONSTRUCTION

The law of claim construction is clearly set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*). A claim term is given the ordinary and customary meaning "that the term would have to a person of ordinary skill in the art in question at the time of the invention."[4] *Id.* at 1313. This "ordinary and customary meaning," however, is not some meaning that an artisan would give the term in the abstract; instead, it is the meaning informed by reading "the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* at 1313. Thus, in its *en banc Phillips* decision, the Federal Circuit made clear that the court "cannot look at the ordinary meaning of the term ... in a vacuum. Rather, [the court] must look at the ordinary meaning in the context of the written description and the prosecution history." *Id*. (*quoting Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005)); *see also Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed. Cir. 2001) ("The claims are directed to the invention that is described in the specification; they do not have meaning removed from the context from which they arose.").

The *en banc Phillips* decision settled a debate in patent law regarding the proper use of the specification in construing claims. Before *Phillips*, many decisions of the court had turned away from the specification and attempted to apply the broadest possible "ordinary meaning," regardless of how the term had been used in the specification. "[T]he court in *Phillips*, resolving

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[4] A person of ordinary skill in the art is one who has at least a bachelor's degree in mechanical or electrical engineering and at least several years experience in designing and improving controllers for video games, robotics, computers, or other electronic devices, including sufficient training or work experience in materials science to understand the chemical and electrical properties of the materials discussed in the PSVC Patents.

conflict, stressed the dominance of the specification in understanding the scope and defining the limits of the terms used in the claim." *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1337-38 (Fed. Cir. 2006). Indeed, the *Phillips* decision reinforced that the specification "is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In addition to consulting the specification, a court "should also consider the patent's prosecution history, if it is in evidence." *Id.* at 1317 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1996)).

This dramatic shift in the law of claim construction due to *Phillips* can best be illustrated by an appeal that was decided before *Phillips* and then reheard and decided differently after *Phillips*. Prior to *Phillips*, the Federal Circuit in *Nystrom v. TREX Co.*, 374 F.3d 1105, 1110-13 (Fed. Cir. 2004) ("*Nystrom I*"), held that the claim term "board" should be given its broadest ordinary meaning in the abstract: "an elongated, flat piece of wood or other rigid material." This was based on the ordinary meaning of the term "board" and the absence of an express disavowal or disclaimer in the specification or prosecution history as to the scope of this term – despite several references in the specification in which the term "board" referred to wood "cut from a log." *Id*. at 1112-13.

Immediately after *Phillips*, the Federal Circuit granted a petition for rehearing for the limited purpose of addressing the effect of *Phillips*. *Nystrom v. TREX Co.*, 424 F3d 1136, 1138 (Fed. Cir. 2005) ("*Nystrom II*"). The *Nystrom II* panel withdrew its earlier opinion, this time finding that the only material that could be a "board," in view of the specification, was wood. Specifically, the *Nystrom II* Court construed "board" to mean "a piece of elongated construction

material made from wood cut from a log." *Id*. at 1145- 46. The Federal Circuit found that a narrower claim construction was appropriate based on the limited disclosure of "boards" in the specification:

> Nystrom consistently used the term "board" to refer to wood cut from a log. ***Although there was no clear disavowal of claim scope***, there was nothing in the intrinsic record to support the conclusion that a skilled artisan would have construed the term "board" more broadly than a piece of construction material made from wood cut from a log.

Id. at 1145. In response to Nystrom's argument that he had made no express disavowal of scope, the Court reiterated that such an argument was of no avail in the post-*Phillips* world:

> What *Phillips* now counsels is that in the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public - i.e., those of ordinary skill in the art - that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term to encompass a broader definition simply because it may be found in a dictionary, treatise or other extrinsic source.

Id. Numerous cases since *Phillips* have followed this same path in construing terms only as broadly as the specification provides. *See, e.g., Old Town Canoe Co. v. Confluence Hold. Corp.*, 448 F.3d 1309, 1315-18 (Fed. Cir. 2006) (finding no basis to construe "coalescence" more broadly than its intrinsic use in the patent); *On Demand*, 442 F.3d at 1339-40 (rejecting patentee's construction using broad standard definition of "consumer" and instead construing term to mean only the retail customer described in the specification even though specification did not explicitly disavow the dictionary scope); *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1379-87 (Fed. Cir. 2006) (rejecting a broad construction of the term "adjustable" because the Court placed too much emphasis on ordinary meaning in the abstract and failed to adequately consider the context of the specification).

These post-*Phillips* cases illustrate the *en banc Phillips* rule that claim terms must be

construed in a manner consistent with the scope of the specification and prosecution history unless there is support in that intrinsic record for a broader construction. These cases contrast with pre-*Phillips* cases such as *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908-09 (Fed. Cir. 2004), which suggested that terms should be given their broadest construction absent an express disclaimer of scope. *Nystrom II* and its progeny require courts to apply the "rule of context" as articulated by the Federal Circuit, which overrides any conflicting "rule" predicated on *Liebel-Flarsheim* or other pre-*Phillips* decisions. Current Federal Circuit authority thus supports the more narrow constructions proposed by Microsoft since they are predicated on the "context" of the intrinsic record and what Mr. Armstrong described as his "invention."

III. MICROSOFT'S PROPOSED CONSTRUCTIONS FAITHFULLY ADHERE TO ARMSTRONG'S DESCRIPTIONS OF HIS ALLEGED PSVC MATERIAL INVENTIONS IN THE PSVC PATENTS

The core claim construction issue for the Court regarding the '084, '802, '886, and '991 Patents (collectively, the "PSVC Patents")[5] is defining the scope of the term "pressure-sensitive variable-conductance material." Here, like in *Nystrom*, the applicant described a specific scope for the material useful in the alleged invention. The *Nystrom II* principle applies even more forcefully where, as here, the type material is described as a core feature of the "invention." Thus, we turn now to the scope of the specifications of the PSVC Patents as they relate to "pressure-sensitive variable-conductance sensors" and "pressure-sensitive variable conductance material."

[5] Anascape refers to these patents using the biased label "Microsoft-Infringed Patents." In view of the Patent Office decisions granting reexamination of the '084 and '802 Patents, finding that there were multiple substantial new questions of patentability, there is more objective support for characterizing the '084, '802, '886, and '991 Patents, as the "Invalid PSVC Patents." However, such biased labels do not promote clear communication. Rather than engage in an unproductive war of labels, Microsoft will refer to these patents as the "PSVC Patents" because they were grouped together by the parties according to their subject matter, not according to Anascape's infringement allegations.

A. The PSVC Patents Are Limited To Sensors With Pressure-Sensitive Variable-Conductance Material

The single asserted claim of the '886 Patent (Claim 7) explicitly recites a sensor having a particular type of "material"—namely "pressure-sensitive variable-conductance material." The other three PSVC Patents—the '084, '802, and '991 Patents—are also limited to sensors with "pressure-sensitive variable-conductance material" because Mr. Armstrong told the public in those patents that this was his "invention."

Specifically, the specifications in the '084, '802, and '991 Patents do not refer to all possible "pressure-sensitive variable-conductance sensors."[6] Rather, they limit their scope to sensors having "pressure-sensitive variable-conductance material" with the following statements:

> The ***present invention*** involves the use of ***pressure-sensitive variable-conductance material*** electrically positioned as a variably conductive element between highly conductive elements in a structural arrangement capable of providing variable electrical output . . . .

('084 Patent, 2:50-54).

> The ***present invention*** involves the use of structures (pressure sensors) having ***pressure-sensitive variable-conductance material*** across proximal circuit traces in order to provide variable output.

('802 Patent, 2:55-57.)

> The ***present invention*** involves the use of structures (pressure sensors) having ***pressure-sensitive variable-conductance material*** across proximal circuit traces in order to provide variable output.

('991 Patent, 2:59-62.)

Similar statements are made elsewhere in the '084, '802, and '991 Patents. For example:

> with the ***present invention at least one*** of the electricity manipulating devices 24 is an analog pressure-sensitive variable-conductance sensor 26 for varying

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[6] Two similar terms show up in the '525 and '700 patents. (*See* Disputed Term Group 1 below.) The parties agree that these similar terms in the '525 and '700 patents should have the same construction as "pressure-sensitive variable-conductance sensor" in the PSVC Patents.

> electrical output proportional to varying physical pressure applied by the user's thumb or fingers on a depressible surface 22 positioned to apply pressure to ***pressure-sensitive variable-conductance material*** 36 of sensor 26 as will be detailed.
> . . . .
>
> ***Pressure-sensitive variable-conductance material*** 36 is an ***important aspect*** of the ***present invention***.

('802 Patent, 5:65-6:5, 6:49-50; *see also* '991 Patent, 6:2-9, 6:53-54; '084 Patent, 1:8-10, 7:1-3.)

As a matter of well-settled patent law, use of the language "present invention" in the specification defines the scope of the invention. *See Honeywell Int'l, Inc. v. ITT Indus., Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006) ("On at least four occasions, the written description refers to the fuel filter as 'this invention' or 'the present invention' …. The public is entitled to take the patentee at his word and the word was that the invention is a fuel filter."); *see also Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1366 (Fed. Cir. 2007) ("While nothing on the face of the asserted claims stated that the term 'composite composition' is limited to a mixture that is in pellet or linear extrudate form, the specifications make clear that the term . . . must be construed to be limited in that manner."). Thus, the claim term "pressure-sensitive variable-conductance sensor" necessarily is a sensor that includes "pressure-sensitive variable-conductance ***material***." When Mr. Armstrong applied for a patent, he told the public that his invention involved the use of this special "material" having pressure-sensitive variable-conductance properties. The law prohibits Mr. Armstrong from asserting broader coverage now. *See Honeywell*, 452 F.3d at 1318.

B. The Special Pressure-Sensitive Variable-Conductance "Material" Described in the PSVC Patents

The PSVC Patents use four words to describe the properties of the special "material" that is the subject of the invention: "pressure-sensitive variable-conductance." The ordinary meaning of these words is that this special "material" has the property that its conductivity

changes with pressure. Specifically, the fact that these four words modify the word "material" means that this is a characteristic of the material. Therefore, material having the property that it changes conductivity under pressure is "pressure-sensitive variable-conductance material." Microsoft will refer to this type of material as "PVSC material."

Conversely, if a material itself does not change conductivity when pressure is applied then it is not "pressure-sensitive variable-conductance material." Microsoft will refer to this type of material as "non-PVSC material."

Variable output switches can be made with either PSVC material or non-PSVC material.[7] This presents the nub of the dispute. Anascape wants to construe the claim terms at issue to cover variable output switches with *either* PSVC material *or* non-PSVC material. Microsoft disagrees. The PSVC Patents are clear that they only cover structures with PSVC material.

As is explained below, Microsoft's proposed claim construction for "pressure-sensitive variable-conductance material" makes this distinction between PSVC material and non-PSVC material. This explanation has two parts: 1) What is PSVC material according to the PSVC Patents and how does it work? 2) What is non-PSVC material; how can variable output switches be made with non-PSVC material; and how does non-PSVC material differ from PSVC material?

[7] How a variable output switch can be made with non-PSCV material is explained below in section III.B.2.

1. What Is PSVC Material According to the PSVC Patents and How Does It Work?

a) The PSVC Patents Describe PSVC Material and Refer to the Mitchell Patent for Additional Description

The PSVC Patents begin the description of the various formulas for PSVC material as follows:

> ***Pressure-sensitive variable-conductance material*** 36 is an ***important aspect*** of the ***present invention***. Variable conductance can be achieved with ***materials*** having either ***variable resistive properties*** or variable rectifying properties. For the purpose of this disclosure and the claims, variable-conductance means either variably resistive or variably rectifying. ***Material having these qualities*** can be achieved utilizing various chemical compounds or formulas some of which I will herein detail for example. ***Additional information regarding such materials can be found in*** U.S. Pat. No. 3,806,471 issued to R. J. ***Mitchell*** on Apr. 23, 1974 ***describing*** various feasible ***pressure-sensitive variable-conductance material formulas*** which can be ***utilized in the present invention*** . . . .

('802 Patent, 6:49-65; '991 Patent, 6:53-66; *cf.* '084 Patent, 7:1-12; 9:35-47.) This description points to the 1974 Mitchell Patent (attached hereto as Ex. 1) for information about the various formulas for PVSC material.

The '802 Patent, goes on to list various details about PVSC material that come from the Mitchell Patent. For example, the '802 Patent identifies chemical mixtures having variable resistive qualities such as "active material tungsten carbide powder (or other suitable material such as molybdenum disulfide, sponge iron, tin oxide, boron, and carbon powders, etc.) bound together with a rubbery or elastic type binder such as silicone rubber or the like having resilient qualities." ('802 Patent, 7:6-11.) With the exception of carbon, these "active materials" are the same as those disclosed in the 1974 Mitchell Patent. (*See* Mitchell Patent, 8:27-51 (listing molybdenum disulfide powder, sponge iron powder, tungsten carbide powder, tin oxide powder, and boron powder).)

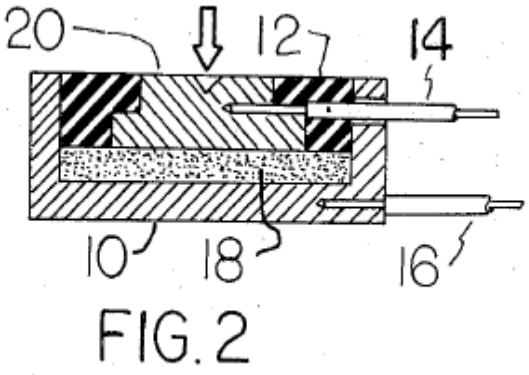
The same quote for the '802 Patent explains that the active materials are "bound together with a rubbery or elastic type binder such as silicone rubber or the like having resilient qualities." ('802 Patent, 7:9-11.) This description follows directly from the Mitchell Patent which explains that particles of "tungsten carbide" are "bonded in an elastomeric material, namely RTV (Room Temperature Vulcanizing) silicone rubber." (Mitchell Patent, 6:54-56.)

The applicant's description of a prior art "carbon-rich conductive pill" also points a person of skill in art to pucks of compressible rubber like those disclosed in Mitchell. (*See e.g.*, '802 Patent, 9:12-57.) Such carbon rich pills made of granular carbon in a silicone rubber binder were known in the art as "conductive rubber switches." (*See* John R. Mason, *Switch Engineering Handbook* Ch. 11 (McGraw-Hill, Inc. 1993) (attached as Ex. 3).) Conductive rubber was known in the prior art to have electrical resistances that varied with pressure. (*See Dictionary of Scientific and Technical Terms* 410 (McGraw-Hill, Inc. 4th Ed. 1989) (attached as Ex. 4).)

The 1974 Mitchell Patent is replete with examples of formulas for creating materials having "pressure-sensitive variable-conductance" properties. (*See generally* Mitchell Patent.) Each of the PSVC Patent specifications describes PSVC material by adopting and incorporating the information disclosed in Mitchell. ('802 Patent, 6:49-7:21; '991 Patent, 6:53-7:25; '084 Patent, 7:1-39; '866 Patent, 9:35-10:16.)

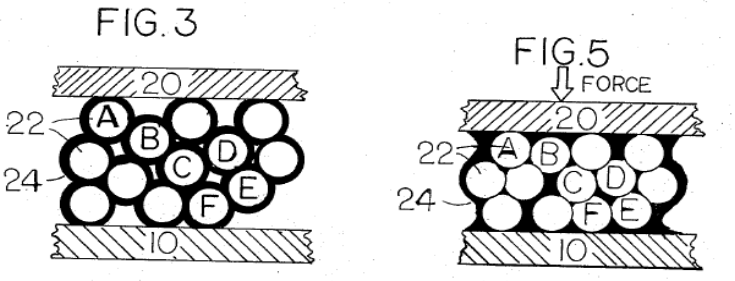
b) The Mitchell Patent's Description of How PSVC Material Works

The Mitchell Patent explains how a material can have the property of variable conductivity as a function of variations in applied pressure. The Mitchell Patent disclosed pressure-sensitive variable-conductance materials that "utilize ***volumetric*** dispersions of at least one type of particulate material that is at least partially conductive in nature and is disposed within a predetermined volume of relatively small depth." (Mitchell Patent, 2:58-62.)



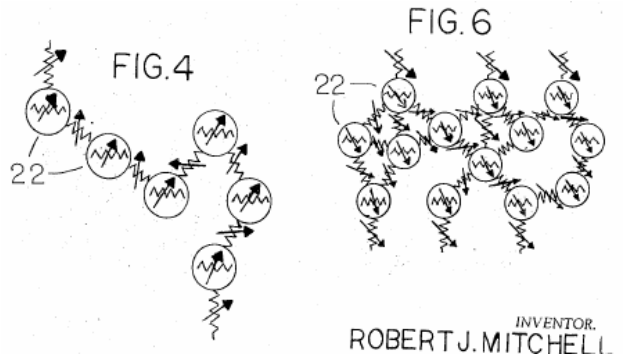
Pressure-Sensitive Variable-Conductance Transducer Disclosed in Mitchell

Figure 2 of the Mitchell Patent (reproduced above) illustrates a side-view of a pressure responsive transducer. Material 18 is partially conductive, such that when pressure is exerted on material 18, electrical resistance to current flow between electrode 10 and electrode 20 is reduced. (*Id*. at 5:57-6:35.) "The electrical current is regulated by the force sensitive material 18, in response to the amount of force applied to the material." (*Id*. at 6:27-30.)



Structure of Pressure-Sensitive Variable-Conductance Material in Mitchell

Figures 3 and 5 of the Mitchell Patent (reproduced above) illustrate the structure of material 18, in which tungsten carbide particles 22 are confined within an elastomeric binder 24. (*Id*. at 7:11-26.) When force is applied, the volume of the material 18 decreases, causing the tungsten carbide particles 22 are forced closer together and increasing the electrical flow paths through the material.



Flow Paths Through Pressure-Sensitive Variable-Conductance Material in Mitchell

Figures 4 and 6 of the Mitchell Patent (reproduced above) illustrate the relative number of current flow paths through material 18 with no force applied and with pressure applied. (*Id*. at 7:26-8:2.) Under pressure, Fig. 6 illustrates that the increase in the number of current flow paths through material 18, along with other effects, causes a reduction in resistance to current flow. (*Id*.) The Mitchell Patent thus explains how a material can have the property of variable conductivity as a result of a change in pressure.

> Mitchell describes how this variable conductivity is due to a volume effect.
>
> Because of the presence of the binder 24, the particulate mass compacts within a ***relatively smaller volume when force is applied*** in a direction normal to the broad faces of the electrodes 10, 20. The overall degree of compaction is minute and limited but nonetheless finite and significant in terms of interparticle relationship.

(*Id*. at 7:35-41.) It is this volume effect (decrease in volume) that causes the material itself to change conductivity in response to changes in pressure.

2. What Is Non-PSVC Material; How Can Variable Output Switches Be Made with Non-PSVC Material; and How Does It Differ from PSVC Material?

A non-PSVC material is disclosed in U.S. Pat. No. 5,296,837 toYaniger, dated March 22, 1994 (the Yaniger Patent, attached as Ex. 2). The material described in the Yaniger Patent falls into the category of conductive ink that is applied by spraying it in liquid form. (Yaniger Patent,

2:23-31.) Specifically, the Yaniger Patent describes a very thin film of a conductive resin with stannous oxide particles that form a surface having micro-protrusions. (*Id*.) It is applied in liquid form like a paint. (*Id*. at 2:25-31; 5:24-38.)

Like paint, the Yaniger material does not compress. The resin, such as the commercially available product Acheson 423, is hard and tough. (*See id*. at 5:33-62.) In comparison to Mitchell material, the Yaniger resin is like paint on a concrete floor, whereas the Mitchell elastomer is like a rubber mat on a concrete floor. The rubber mat is compressible, the paint is not.

The Yaniger material—resin and stannous oxide particles—does not change conductance with changes in pressure. Rather, the resin material is loaded with carbon particles to form a continuous conductive matrix to freely conduct electricity. (*Id*. at 5:11-18.)

Accordingly, the Yaniger material is non-PSVC material—the material does not compress with pressure, it does not decrease in volume under pressure, and it does not change conductivity with pressure.

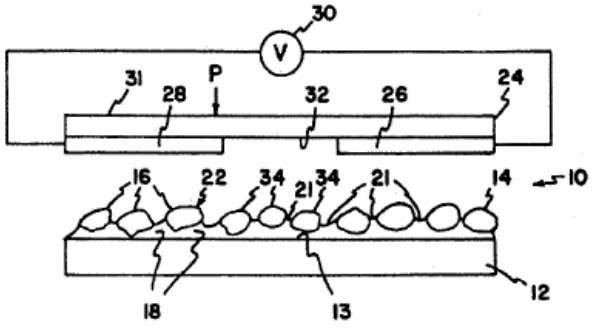


FIG. 1

Structure of Yaniger Sensor Without Pressure-Sensitive Variable-Conductance Material

The non-PSVC Yaniger material can be used to create a variable output switch as explained in the Yaniger Patent. Application of the Yaniger conductive ink results in a thin layer having micro-protrusions of stannous oxide particles. (*Id*. at Fig. 1.) Referring to Fig. 1

(reproduced above), the conductor support ply (24) and/or the base ply (12) are flexible. When pressure is applied, the stannous oxide particles begin to come in contact with the conductors. As pressure is increased, the support ply flexes and greater numbers and regions of contact occur between the surface of the Yaniger conductive ink and the electrical contacts, thereby reducing the resistance to electrical current flow.

Through this surface area affect, utilizing micro-protrusions, variable electrical output is achieved. Notably, the variable electrical output is not a function of a change in conductivity of the conductive ink layer. Rather, the variable output of the circuit is caused by increased surface area contact between the stannous oxide micro-protrusions and the electrical contacts.

Yaniger is patentably distinct from Mitchell. The Patent Office issued the Yaniger Patent in view of the prior Mitchell Patent. Indeed, the Yaniger Patent explains how the Mitchell pressure sensors operate through a completely different mechanism. (*Id*. at 1:13-21.)

C. Microsoft's Proposed Claim Constructions Faithfully Draw the Distinction Between PSVC Material and Non-PSVC Material

Microsoft's proposed claim constructions for the terms related to PSVC material explain how PSVC material (Mitchell) differs from non-PSVC material (Yaniger). The first paragraph summarizes the mechanism by which Mitchell material has the property of conductance that changes with pressure. The second paragraph excludes from the definition of PSVC material, the non-PSCV (Yaniger) material. Accordingly, Microsoft's proposed constructions faithfully adhere to the PSVC Patents' descriptions of their PSVC material "inventions," as the Federal Circuit's *Phillips* and *Nystrom II* decisions require.

1. Microsoft's Proposed Constructions Do Not Improperly Incorporate a Limitation From the Specification Into the Claims

Microsoft's claim construction does not improperly incorporate a limitation from the

specification into the claims. Where, as here, the entire specification makes clear that the scope of the invention is limited, the claims terms are construed consistent with that limitation. *See Phillips*, 415 F.3d at 1315; *Nystrom II*, 424 F3d at 1145.

In this case, the PSVC Patents make it abundantly clear that PSVC material is an important part of the "invention" and that the PSVC material is defined by the Mitchell Patent. The PSVC Patents do not cite to the prior art Yaniger Patent. Nor do they ever make a reference to the mechanism for creating a variable switch using conductive ink as described in the Yaniger Patent. Notwithstanding, the fact that Yaniger issued more than four years before the applications for the '084 and '886 Patents—more than three years before the application for the '802 Patent—and six years before the application for the '991 Patent—the PSVC Patents do not contain a single statement that indicates that the applicant contemplated using Yaniger non-PSVC material as part of his alleged invention.

If Anascape's contention that the asserted claims cover Yaniger type non-PSVC material were correct, then *Nystrom II* would have come out differently. The term "board" as used in the claims would not have been limited to wooden boards due to the description in the specification. Rather the term "board" would have applied to any material in the shape of a board, such as the artificial plastic boards made by Trex.

2. Microsoft's Proposed Constructions Do Not Exclude One of the Disclosed Embodiments

Anascape argues that Microsoft's construction reads out one of the disclosed embodiments. Not so. Microsoft's proposed construction rules out a paint of non-PSVC material with micro-protrusions. Nowhere do the PVSC patents disclose such an embodiment.

In making this argument, Anascape refers to Figures 7 and 8 in the '802 and '991 Patents.[8] Figures 7 and 8 do not show a paint of non-PSVC material paint with micro-protrusions. They show quite the opposite—a puck of rubbery PSVC material with a convex surface. Fig. 8 shows how the rubbery PSVC material compresses. This is not an image of a thin film of paint like that of the Yaniger non-PSVC material.

The text describing Figs. 7 and 8 confirm that it is PSVC material:

> Also shown in FIGS. 7 and 8 is the surface of material 36 which contacts traces 32 and 34 is convexed which in this particular application provides for the apex of the surface to first contact across traces 32 and 34 followed by ***material 36*** which is ***flexible deforming with additional applied pressure to somewhat flatten-out*** and contact additional surface area of both traces 32 and 34. This arrangement of relatively lower initial surface area contact followed by additional or a larger surface area contact with further depression can provide additional conductivity changes due to not only the ***inherent conductivity changes brought about by pressure applied to material 36*** but also by establishing additional current paths possible by the additional surface contact area. Material 36 in FIGS. 7 and 8 can be formed with a flat bottom surface and function adequately without the increasing surface area effect provided by the convexed shape shown.

('802 Patent, 8:58-9:7; '991 Patent, 8:62-9:10.) Note that "material 36" is expressly introduced earlier in the '802 and '991 Patents as PSVC material.

The '802 and '991 Patents describe the material as deformable, rubbery material having an "inherent" change in conductivity with pressure—in other words PSVC material. There is no inkling in this description of a paint of non-PSVC material having microprotrusions. Microsoft's proposed claim construction does not exclude the embodiment disclosed in Figs. 7 and 8. It only excludes non-PSVC material having micro-protrusions.

[8] These figures do not appear in the '084 or the '886 Patents.

D. Specific Disputed Terms Related to the PSVC Material of the "Invention"

1. Disputed Term Group 1: "pressure-sensitive variable-conductance analog sensor" terms

CLAIM TERM, PHRASE OR CLAUSE	PROPOSED CONSTRUCTION
pressure-sensitive variable-conductance sensor ('802 Patent: Claims 1-4, 16-18) pressure-sensitive variable-conductance sensor pressure-sensitive analog sensor pressure-sensitive variable-conductance analog sensors ('802 Patent: Claims 23, 29, 32, 33, 35, 40, 41, 42, 43, 44, 66, 67, 68, 69, 70, 71, 72)	A pressure-sensitive variable-conductance sensor has material to contact conductive elements. This type of sensor has a conductivity that changes due to a volume effect. As pressure on the material increases the material volume decreases. This decrease in volume of the material increases the internal conductivity through the material. As a result, the conductivity through the sensor increases. A pressure-sensitive variable-conductance sensor does not include a variable conductivity sensor utilizing a microprotrusion surface area effect. In such a sensor, as pressure on the material increases the surface area of contact between the micro-protrusions and the conductive elements increases. As a result, the conductivity through the sensor increases.
a pressure-sensitive variable sensor ('525 patent: Claims 1, 6, 18) a pressure-sensitive . . . button sensor ('700 patent: Claims 6, 9)	A pressure-sensitive variable sensor and pressure-sensitive . . . button sensor have material which remains in electrical contact with conductive traces at all times. This type of sensor has a conductivity that changes due to a volume effect. As pressure on the material increases the material volume decreases. This decrease in volume of the material increases the internal conductivity through the material. As a result, the conductivity through the sensor increases. These sensors do not include a variable conductivity sensor utilizing a micro-protrusion surface area effect. In such a sensor, the micro-protrusion material is initially not in contact with the sensor's conductive traces. As pressure on the material increases, the surface area of contact between the micro-protrusions and the conductive elements increases. As a result, the conductivity through the sensor increases.

As explained above in section III.A, the PSVC Patents expressly limit the scope of the "present invention" to sensors with PSVC material.

As explained above in section III.B.2, resin that is painted on to form a thin film with micro-protrusions is non-PSVC material and is outside the scope of the PSVC material described by the PSVC Patents. Microsoft's construction defines PSVC material in accordance with the description in the specification of the PSVC Patents and explicitly excludes non-PSVC material from that definition. (*See* discussion of PSVC material at section III.B.1, *supra*; discussion of PSVC-related claim constructions at section III.C, *supra*.) In contrast, Anascape's proposed construction improperly extends the scope of the claims beyond the scope of the description in the PSVC Patents contrary to *Phillips* and *Nystrom II*. Accordingly, the Court should adopt Microsoft's proposed construction. *See Honeywell*, 452 F.3d at 1318 ("On at least four occasions, the written description refers to the fuel filter as 'this invention' or 'the present invention.' … The public is entitled to take the patentee at his word and the word was that the invention is a fuel filter.");[9] *see also Andersen*, 474 F.3d at 1366.[10]

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[9] In *Honeywell*, the claim term at issue was "fuel injection system component." Based on the specification's description of the "invention" as including a "fuel filter," the court limited the claim term to that one component. *Id.*

[10] In *Andersen*, the claims referred to a "composite composition" but did not expressly state whether or not this composition had to be in a pellet or extrudate form. However, the specification stated that "[t]he ***invention*** relates to a composition comprising a polymer and wood fiber composite that can be used in the form of a linear extrudate or thermoplastic pellet to manufacture structural members." *Id*. at 1367. The Court held that "[w]hile nothing on the face of the asserted claims stated that the term 'composite composition' is limited to a mixture that is in pellet or linear extrudate form, the specifications make clear that the term . . . must be construed to be limited in that manner." *Id.* at 1366.

2. Disputed Term Group 2:
"pressure-sensitive variable-conductance material" and similar terms
('084 Patent: Claims 5-6, 11; '802 Patent: Claims 1, 7, 10; '886 Patent: Claim 7; '991 Patent: Claims 12, 29, 31, 50) [11]

PROPOSED CONSTRUCTION
Material that has a conductivity that changes due to a volume effect. As pressure on the material increases the material volume decreases. This decrease in volume of the material increases the internal conductivity through the material. As a result, the conductivity through the sensor increases. This does not include material utilizing a microprotrusion surface area effect. In such material, as pressure on the material increases the surface area of contact between the micro-protrusions and the conductive elements increases. As a result, the conductivity through the sensor increases.

As explained above in section III.B.2, resin that is painted on to form a thin film with micro-protrusions is non-PSVC material and is outside the scope of the PSVC material described by the PSVC Patents. Microsoft's construction defines PSVC material in accordance with the description in the specification of the PSVC Patents and explicitly excludes non-PSVC material from that definition. (*See* discussion of PSVC material at section III.B.1, *supra*; discussion of PSVC-related claim constructions at section III.C, *supra*.) Accordingly, the Court should adopt Microsoft's proposed construction. *See Phillips*, 415 F.3d at 1315; *Nystrom II*, 424 F3d at 1145.

3. Disputed Term Group 3:
"pressure-sensitive variable conductance of one of said buttons"
('802 Patent: Claim 11)

PROPOSED CONSTRUCTION
The conductivity of a pressure-sensitive variable-conductance sensor.

[11] Anascape and Microsoft agree that the similar term "pressure sensitive variable-conductance material means" should be construed in the same way in the '802 Patent.

As discussed above in section III.A, the ’802 Patent limits the “present invention” to structures having pressure-sensitive variable-conductance material. (*See also*, ’991 Patent, 2:59-62.) These general statements about the structures of the “invention” do not exclude “buttons.” (*See* ’991 Patent, 2:59-62, 6:2-9, 6:53-54.) Accordingly, this term should be construed in the same manner as a pressure-sensitive variable-conductance sensor, to include pressure-sensitive variable-conductance material. (*See* discussion of PSVC and non-PSVC materials at section III.B, *supra*; discussion of PSVC-related claim constructions at section III.C, *supra*.) *See Honeywell* 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

4. Disputed Term Group 4: “depressing . . .”

CLAIM TERM, PHRASE OR CLAUSE	PROPOSED CONSTRUCTION
depressing at least one of said individual buttons with varying degrees of pressure for manipulating imagery in proportion to the degree of depressive pressure (’802 Patent: Claims 12-13)	depressing at least one of the depressible individual buttons, which include a pressure-sensitive variable-conductance sensor, with varying force in order to control or change the imagery in proportion to the force applied
“depressing said depressible individual button with varying degrees of pressure for varying the action intensity of the imagery proportional to the degree of depressive pressure” (’802 Patent: Claims 14-15)	depressing at least one of the depressible individual buttons, which include a pressure-sensitive variable-conductance sensor, with varying force in order to choose the action intensity of the imagery in proportion to the force applied

As discussed above in section III.A, the ’802 Patent limits the “present invention” to structures having pressure-sensitive variable-conductance material. (*See also* ’802 Patent, 2:55-57, 5:65-6:5, 6:49-50.) Accordingly, in the context of the written description in the ’802 Patent, the depressing of a button to generate variable output, is necessarily limited to a button that

includes a "pressure-sensitive variable-conductance material." A synonymous term for a "button" with "pressure-sensitive variable-conductance material," is a "pressure-sensitive variable-conductance sensor." Accordingly, the Court should adopt Microsoft's proposed construction. (*See* discussion of PSVC and non-PSVC materials at section III.B, *supra*; discussion of PSVC-related claim constructions at section III.C, *supra*.)

Anascape invites error by providing no construction at all for these disputed terms. The Court should reject Anascape's invitation. *See AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1247 (Fed. Cir. 2001) ("It is critical for trial courts to set forth an express construction of the material claim terms in dispute . . . ."); *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed.Cir.1995) ("[T]he trial judge alone has the duty and responsibility to interpret the claims at issue.").[12]

Anascape's alternative construction should also be rejected because it expands the scope of the claims beyond what Mr. Armstrong told the public was his "invention" in the '802 Patent: a structure with PSVC material. (*See* '802 Patent, 2:55-57, 5:65-6:5, 6:49-50.) *See Honeywell*, 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

5. Disputed Term Group 5: "flexible material"

('991 Patent: Claim 41)

PROPOSED CONSTRUCTION
Pressure-sensitive variable-conductance material

Claim 41 of the '991 Patent states:

[12] In the only Federal Circuit case that Anascape cites as authority for its non-construction, *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 805 (Fed. Cir. 2007), the court stated that claim construction is not always difficult, but it did not dismiss courts from their duty to construe disputed claim terms. Indeed, the court there went on for several paragraphs analyzing the meaning of the word "curved", and ultimately affirmed the district court's construction. *Id.* at 805-06.

> 41. A game control according to claim 40 wherein said electronics means includes an ASIC, and said ***pressure-sensitive variable-conductance sensor*** includes ***flexible material*** having a ***substantially convex surface***, said ***material deforming with additional pressure to flatten causing contact of additional surface area to provide conductivity changes of said sensor***.

Claim 41 describes the embodiment shown in Figures 7 and 8 of the '991 Patent. Thus, the "flexible material" in Claim 41 is none other than the PSVC material that compresses and flattens on contact with the circuit traces that is shown in Figures 7 and 8. Moreover, as discussed above in section III.A, the '991 Patent limits the "present invention" to structures having "pressure-sensitive variable-conductance material." (*See also*, '991 Patent, 2:59-62.) Accordingly, the term "flexible material" in this claim must refer to "pressure-sensitive variable-conductance material," and Microsoft's proposed construction should be adopted. *See Honeywell*, 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

As discussed in section III.D.4 above, the Court should reject Anascape's proposal that the Court need not construe this disputed term at all. *See AFG Indus.*, 239 F.3d at 1247; *Exxon Chem.*, 64 F.3d at 1556. It should also reject Anascape's invitation to extend the meaning of the claim terms beyond what Mr. Armstrong described as his "invention" in the '991 Patent. *See Honeywell*, 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

6. Disputed Term Group 6: "said surface with an apex is flexible, deforming with additional physical pressure to flatten and cause additional surface area contact to provide <u>changes in electrical conductivity in said sensor</u>"
('802 Patent: Claim 66)

PROPOSED CONSTRUCTION
The surface with an apex is formed of pressure-sensitive variable-conductance material.

Claim 66 describes the embodiment shown in Figures 7 and 8 of the '802 Patent. Accordingly, the "surface with an apex . . ." is none other than the PSVC material that

compresses and flattens on contact with the circuit traces that is shown in Figures 7 and 8. Moreover, as discussed above in section III.A, the '802 Patent limits the "present invention" to structures having "pressure-sensitive variable-conductance material." (*See also,* '991 Patent, 2:59-62.) Accordingly, the term "surface with an apex . . ." in this claim must be limited to "pressure-sensitive variable-conductance material." *See Honeywell*, 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

As discussed in section III.D.4 above, the Court should reject Anascape's proposal that the court need not construe this disputed term at all. *See AFG Indus.*, 239 F.3d at 1247; *Exxon Chem.*, 64 F.3d at 1556. It should also reject Anascape's invitation to extend the meaning of the claim terms beyond what Mr. Armstrong described as his "invention" in the '802 Patent. *See Honeywell*, 452 F.3d at 1318; *see also Andersen*, 474 F.3d at 1366-67.

IV. OTHER DISPUTED TERMS

A. Disputed Term Group 7: "sheet"

('991 Patent: Claims 44, 46, 47)

PROPOSED CONSTRUCTION
Limited to circular disks of material adhered to a single dome cap or on top of a single circuit trace.

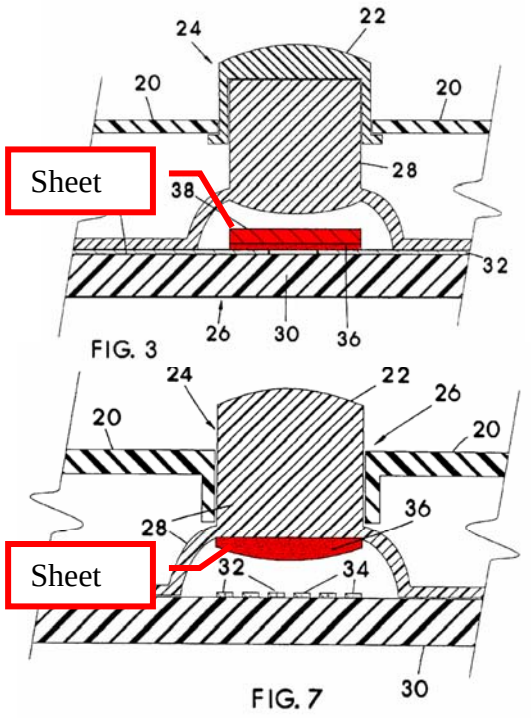
The parties disagree about whether the term "sheet" should be limited to what Mr. Armstrong described as a "sheet" in the '991 Patent—a circular disk of material adhered to a single dome cap or on top of a single circuit trace. This is yet another example of Anascape divorcing its proposed construction from what Mr. Armstrong described in the specification, contrary to the law under *Phillips* and *Nystrom II*.

The '991 Patent specification only uses the term "sheet" in one paragraph. That paragraph and Figure 3 that it refers to describe and show a circular disk of material that is

adhered to a circuit trace as in Figure 3 or to the top of a dome cap as in Figure 7:

A preferred method of manufacture for portions of that which is shown in FIG. 3 is to create a ***sheet of pressure-sensitive material 36 adhered to a conductive sheet*** such as steel, aluminum or copper, for example, by applying a mixture of the still fluid material 36, before the hinder material has cured to the conductive sheet in a thin even layer. After the binder material (material 36) has cured and adhered to the conductive sheet, a hole punch is used to create ***circular disks of the lamination of the conductive sheet (plate 38) adhered to material 36.*** The disks may then be secured to the circuit board and in contact with circuit traces 32 and 34. Securing may be accomplished with the use of adhesives such as the same binder such as silicone rubber or adhesive as used in the formula to make material 36.

('991 Patent, 7:26-40.)



As in *Nystrom II*, there is nothing in the intrinsic record to indicate that someone skilled in the art would have understood the term sheet to refer to anything broader than what was disclosed in the '991 Patent specification: a circular disk of material adhered to a single dome cap or on top of a single circuit trace. Accordingly, the Court should adopt Microsoft's proposed construction of the term "sheet," and it should reject Anascape's construction, which is based on a dictionary definition that is divorced from the use of "sheet" in the '991 Patent specification. *See Nystrom II*, 424 F3d at 1145 ("[I]n the absence of something in the written description and/or prosecution history to provide explicit or implicit notice to the public - i.e., those of ordinary skill in the art - that the inventor intended a disputed term to cover more than the ordinary and customary meaning revealed by the context of the intrinsic record, it is improper to read the term

to encompass a broader definition simply because it may be found in a dictionary, treatise or other extrinsic source.").[13]

B. Disputed Term Groups 8 & 9:
"means for creating an analog [output proportional to] [signal representing] varying applied physical pressure
('802 Patent, Claims 5, 7, 9, 10; '802 Patent, Claim 23)
"means for creating an On/Off output, and with varied <u>pressure creating an analog output"</u>
('802 Patent, Claim 40)

PROPOSED STRUCTURE (only disputed issue)
pressure-sensitive variable-conductance material able to contact circuit traces, and equivalents thereof

The parties agree that the two "means for creating …" elements are written in the "means-plus-function" format governed by 35 U.S.C. § 112, ¶ 6, as each recite a "means for" performing a function and do not recite sufficient structure in the claim itself to overcome the "means" presumption. Furthermore, the parties agree on the functions for these terms. The parties also agree that the patents disclose the same structure for performing the similarly-worded functions of these elements. The parties disagree, however, on what, exactly, that structure is.

The functions at issue in the first set of terms are essentially the same and involve creating an analog signal or output that represents the amount of pressure applied: "creating an analog output proportional to varying applied physical pressure," and "creating an analog signal representing varying applied physical pressure." The function in the second term is similar, but adds an initial function of creating an on/off signal as well: "creating an On/Off output, and with

[13] As discussed in section III.D.4 above, the Court should also reject Anascape's proposal that the court need not construe this disputed term at all. *See AFG Indus.*, 239 F.3d at 1247; *Exxon Chem.*, 64 F.3d at 1556.

varied pressure creating an analog output." There are two specific disputes between the parties regarding what structure is disclosed in the patents for performing these functions: (a) whether a dome cap—and, more particularly, a dome cap having a very specific curved shape on the underside of the dome cap—is part of the required structure (Anascape contends it is), and (b) whether the material for performing this function is any mere conductive material (as Anascape claims) or PSVC material (as Microsoft argues).

As Anascape's opening brief explains, "[i]dentifying the corresponding structure requires particular attention to detail …" (Anascape Br. at 9). On the one hand, the Court must make sure to include "all structure that actually performs the recited function." *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 296 F.3d 1106, 1119 (Fed. Cir. 2002). On the other hand, the Court must be careful not to include structures that are "unnecessary to perform the claimed function." *Wenger Mfg., Inc. v. Coating Machinery Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001). The problem with Anascape's proposed structure, however, is that it both leaves out necessary structure PSVC material) that the patent discloses as creating the variable output signal, but also adds in more extraneous details that are unnecessary to perform this creating function (*e.g.*, dome cap with a very specifically shaped underside).

1. Microsoft's Proposed Structure of Pressure-Sensitive Variable-Conductance Material and Circuit Traces is Exactly what the Patents Say Perform the Claimed Function

The '802 and '991 patents could not be clearer in setting forth the structure that creates an analog, variable output signal: "The present invention involves the use of structures (pressure sensors) having ***pressure-sensitive variable-conductance material across proximal circuit traces in order to provide variable output***." ('802 patent, 2:55-58). Microsoft asks the Court to adopt precisely that—no less, no more.

The rest of the patent simply reaffirms the basic statement above:

> Applied physical pressure is provided by a user of the present controller depressing a button or like depressible surface (e.g., cross-shaped key pad or finger depressible trigger which is commonly a pivotal member) which applies pressure onto ***pressure-sensitive variable-conductance material*** which, dependant upon the applied pressure, alters its conductivity (i.e., resistive or rectifying properties dependant on pressure sensor material utilized) and thereby ***provides analog electrical output proportional to the applied pressure***." ('802 patent, 2:64-3:5).
>
> At least one of the electricity manipulating devices is ***a pressure-sensitive variable-conductance sensor for creating an analog electrical output*** proportional to varying physical pressure applied to at least one depressible surface. ('802 patent, Abstract).
>
> Such an arrangement allows a voltage/current to be applied to first circuit trace 32 wherein current flows from first circuit trace 32 through ***pressure-sensitive variable-conductance material 36*** into conductive plate 38 through pressure-sensitive variable-conductance material 36 and into second circuit trace 34. ***Voltage/current can be regulated and varied by way of applied physical pressure such as onto plate 38 to compress material 36 which alters the conductivity of the circuit at least in-part defined by circuit traces 32 and 34***. ('802 patent, 6:39-48).

In sum, the patents repeatedly link the function of creating a variable output with the "pressure-sensitive variable-conductance material" and circuit traces, which is precisely what Microsoft proposes for its construction.

Anascape argues that instead of PSVC material, the Court should identify the structure as just "conductive material." However, "the specification must clearly associate the structure with performance of the function." *Cardiac Pacemakers*, 296 F.3d at 1113. While the passages quoted above plainly link pressure-sensitive variable-conductance material to the function of creating a variable or analog output, Anascape's brief did not cite any part of the patents that "clearly associates" mere conductive material with the claimed function. In fact, the patents' text and figures that Anascape includes in its brief for this term all refer to "material 36," which earlier in the patent is introduced as "pressure-sensitive variable-conductance material 36." ('802 patent, 6:14-16). Indeed, the Summary of the Invention makes clear that "[p]ressure-

sensitive variable-conductance material 36 is an important aspect of the present invention." ('802 patent, 6:49-50). If Anascape had wanted to incorporate any conductive material for this term, the law required it to disclose the material in the specification ***and*** clearly link it to the function when it drafted the patent. *Med. Instr. & Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003) ("The duty . . . to clearly link or associate structure with the claimed function is the *quid pro quo* for allowing the patentee to express the claim in terms of function under section 112, paragraph 6."). There simply is no such disclosure and linking to support Anascape's position.

Because the '802 and '991 patents clearly link the function of creating or providing a variable, analog output to "pressure-sensitive variable-conductance material across proximal circuit traces" ('802 patent, 2:55-58), the Court should adopt Microsoft's proposed structure for this term.

2. The Court Should Not Include the Minutiae of a "Convex-curved Dome Cap" that Anascape Proposed Because it is Not a Necessary Structure

While trying to avoid the very material that the patents describe as "important" and the "present invention" for creating the variable output, Anascape at the same time asks the Court to include a dome cap having a specific convex curved underside. Anascape's proposal for including such a minute detail should be rejected because (1) the patents never clearly link the dome cap to the function of creating a variable output, but instead link it to a different function; (2) the patents make clear that dome cap is not part of the minimum necessary structure for creating a variable output; and (3) the patents even go on to expressly state that the dome cap and the particular convex shape are ***not*** necessary.

First, the Court can only include structures that are clearly linked in the specification to the specific function of creating an analog output or signal: "It is not enough simply to list a

certain structure in the specification; that structure must also be clearly linked to a claimed function in order to be a corresponding structure for that function." *Med. Instr.*, 344 F.3d at 1218.[14] Anascape has not pointed to a single place in the patents where the dome cap itself is described as creating the analog output. Instead, it is the PSVC material that may or may not be attached to the dome that causes the analog output as a result of pressure on the material. In fact, the patents instead give a different function to the dome cap: "providing a return spring lifting depressible surface 22." ('802 patent, 6:17-20). Thus, the dome cap is linked to a different function, not the analog signal creation function. The Federal Circuit has warned that when construing a means-plus-function element, the court should avoid including "structure that was not clearly linked to that function but was clearly linked in the specification to a different function." *Med. Instr.*, 344 F.3d at 1216 (citing *Medtronic,* 248 F.3d at 1311-13). Including the dome cap as Anascape requests would have the impermissible effect of adding this extraneous structure that is not linked to the function of creating an analog signal but is instead linked to a different function.

Second, Anascape's proposal must be rejected because it would add much more structure than the patent discloses as the minimum necessary to create the variable output. As set forth in the section above, the patents on several occasions describe creating the variable output using the pressure-sensitive variable-conductance material and circuit traces, without mentioning the dome cap. As Anascape itself argues, the Court must include only the "minimum structure necessary to perform the function." (Anascape Br. at 24-25). Because the patent repeatedly describes

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[14] *See, e.g.*, *Medtronic, Inc. v. Advanced Cardiovascular Systems, Inc.*, 248 F.3d 1303, 1311-14 (Fed. Cir. 2001) (straight wire, hooks, and sutures disclosed in specification but not clearly linked to claimed function of "connecting adjacent elements together"); *B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424-25 (Fed. Cir. 1997) (valve seat was disclosed in specification but not clearly linked to claimed function of "holding the flexible disc against the triangular member to restrain sideways movement).

creating the variable output without mentioning the dome cap, including it in the structure would include more than the minimum necessary structure.

Finally, the patents in fact state quite clearly that the dome cap and the specific convex shape are ***not*** necessary, and that the patented analog sensor will work without them. After describing the possibility of using a convex-curved shape on the underside of the dome cap, the patents explain that flat material will also work: "Material 36 in FIGS. 7 and 8 ***can be formed with a flat bottom surface*** and function adequately without the increasing surface area effect provided by the convexed shape shown." ('802 patent, 9:4-7). In fact, the patents continue that even the dome cap in general is not necessary to the functioning of the analog output sensor: "[S]ensors 26 of FIGS. 3, 5, 7 and 8 ***will function within the scope of the invention absent the spring return effect of dome cap 28*** wherein material 36 shown in FIG. 7 would be resting upon traces 32 and 34 and actuated by depression of surface 22." ('802 patent, 9:8-12). Because § 112 ¶ 6 does not "permit incorporation of structure from the written description beyond that necessary to perform the claimed function," *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999), the Court should reject Anascape's request to include these details that the patents call out as unnecessary.

C. Disputed Term Group 10: "electronics means for . . ." and "active electronics means for . . . " performing various functions

('802 Patent, Claims 23, 24, 28, 30, 35, 40, 66)

PROPOSED CONSTRUCTION
Governed by 35 U.S.C. § 112, ¶ 6.

The '991 patent includes a number of terms that recite "electronics means for" performing various functions and "active electronics means for" performing various functions. The parties dispute whether these terms are governed by 35 U.S.C. § 112, ¶ 6. Microsoft

contents they ***are*** means-plus-function terms; Anascape contends the opposite. However, assuming Microsoft's position on this threshold question is correct, Anascape does not dispute Microsoft's identification of the proper function and structure. Thus, the only issue for the Court for these terms is whether § 112, ¶ 6 applies. Because the law ***presumes*** that these terms are governed by § 112, ¶ 6, a presumption that Anascape cannot and has not overcome, the Court should adopt Microsoft's proposed construction.

Anascape does not dispute that each and every one of these terms recites the words "means for" followed by the functions of either "reading" or "outputting." "A claim limitation that actually uses the word 'means' invokes a rebuttable presumption that § 112, ¶ 6 applies." *CCS Fitness Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002). The presumption can only be overcome if the claim fails to recite a function or if the claim itself recites sufficiently definite structure "to perform entirely the recited function." *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed. Cir. 1997). However, the burden is on the party opposing the presumption to present evidence that will overcome the presumption. "This burden must be met by the preponderance of the evidence standard." *Apex, Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1372 (Fed. Cir. 2003). Here, because these terms all include the word "means," Anascape bears the burden to overcome this presumption and to prove that § 112, ¶ 6 does ***not*** apply.

Anascape argues that the presumption can be rebutted because the claim terms recite words "electronics" or "active electronics," which Anascape claims to be structural. However, "[t]he recitation of some structure in a means plus function element does not preclude the applicability of section 112(6)." *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991). Instead, to rebut the presumption, the claim limitation must recite "sufficiently definite

structure to perform the claimed function." *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352, 1361 (Fed. Cir. 2000).

The word "electronics" simply is too vague and generic to provide the "sufficiently definite structure" necessary to overcome the legal presumption that § 112, ¶ 6 applies. It is telling that Anascape does not cite to any dictionary or treatise definitions of "electronics." Indeed, contrary to Anascape's argument in its brief, "electronics" actually refers not to any specific structure but instead to a generic class of technology that involves the conduction of electricity. *See, e.g.*, McGraw-Hill Dictionary of Scientific and Technical Terms 627 (4th ed. 1989) (defining "electronics" as "Study, control, and application of the conduction of electricity through gasses or vacuum or through semiconducting or conducting materials"); *American Heritage Dictionary* 273-74 (3rd ed. 1992) (attached as Ex. 5) (defining "electronics" as "1. The science dealing with the controlled conduction of electronics, esp. in a vacuum, gas, or semiconductor; 2. Electronic devices and systems"). Such a generic word as "electronics" is so broad that it could encompass everything from a vacuum tube to a microcontroller.

The Federal Circuit has held that such generic words are insufficiently specific and definite to overcome the presumption that § 112, ¶ 6 applies when combined with the word "means." For example, in *Overhead Door Corp. v. Chamberlain Group, Inc.*, 194 F.3d 1261, 1271-72 (Fed. Cir. 1999), the Court construed the claim term "memory selection second ***switch means***" as being subject to § 112, ¶ 6 because "the claim does not specify any structure or material for performing the recited function" even though it recited the generic word "switch." Likewise, in *DESA IP, LLC v. EML Techs., LLC*, 211 Fed. Appx. 932, 2007 WL 79066, at *4 (Fed. Cir. Jan. 4, 2007) (non-precedential), the Court held that "circuit means … for causing" was written in means-plus-function format even though it included the general word "circuit."

The terms "circuit" and "switch" are even more specific than the broader field of "electronics," yet those narrower terms were still too general to overcome the Federal Circuit's "means" presumption.[15]

Anascape argues that the use of the term "electronics" alone (i.e., without the word "means") in a different claim proves that the word "electronics" is sufficiently structural to rebut the presumption. However, the Federal Circuit has repeatedly found otherwise. For example, in *Overhead Door*, one claim included the term "memory selection … switch means" while another claim recited "memory selection switch." 194 F.3d at 1267. Consistent with the respective presumptions, the Court construed the first (which used the word "means") as being subject to § 112, ¶ 6, but construed the second term (which did not use the word "means") as not being subject to that provision. *Id*. at 1267, 1271-72. Likewise, the Federal Circuit's various cases construing the word "circuit" show that the term "circuit" alone does not invoke § 112, ¶ 6, while the term "circuit means" does invoke § 112, ¶ 6. *Compare Apex*, 325 F.3d at 1373 ("circuit" without word "means" not means-plus-function) *with DESA IP*, 2007 WL 79066, at *4 ("circuit means … for causing" is "means-plus-function"). Cases like these show that under the Federal Circuit's law, the "means" presumption makes the critical difference. Terms like "switch," "circuit," and "electronics," may be acceptable appearing by themselves in a claim, but when the

[15] Anascape cites to a number of cases in which the word "circuit" alone – without the word "means" – was held not to be subject to § 112, ¶ 6. However, those cases are of no help to Anascape because they involve the opposite presumption in which a claim that does ***not*** use the word "means" is presumed not to invoke § 112, ¶ 6. In those cases, the Court determined that the challenger had failed to overcome the presumption. The Court in *DESA IP* distinguished those cases for this reason, finding that the presumption based on the presence or absence of the word "means" was the crucial difference: "DESA argues that this court has previously stated that 'it is clear that the term 'circuit' by itself connotes some structure.' *Apex*, 325 F.3d at 1373. In *Apex*, however, the word 'means' was not used, so the reverse presumption – i.e., that § 112, ¶ 6 does not apply – was invoked. Here, we agree with the district court that DESA failed to overcome the presumption that § 112, ¶ 6 does apply to ... "control circuit means." *DESA IP*, 2007 WL 79066, at *4.

patentee chooses to pair them with the word "means," he invokes the dictates of § 112, ¶ 6 because the terms are not sufficiently detailed to overcome the presumption. Anascape's argument that it chose to use "electronics" alone in other claims in fact undercuts its position, because a patentee's use of "means-plus-function" language in some claims but not in others "suggests that the patentee intentionally used 'means' language to invoke § 112, ¶ 6." *DESA IP*, 2007 WL 79066, at *4.

Finally, Anascape's suggestion that the ***specification*** provides a detailed recitation of structure for the term "active electronics" is unavailing for two reasons. First, the test for whether the presumption is rebutted is whether the claim itself recites sufficient structure; whether the specification describes such structure is irrelevant for this issue. Second, looking to the specification improperly muddles the court's claim construction tasks under § 112, ¶ 6. In step one, the court determines whether a term is subject to § 112, ¶ 6 and ***then***, if so, the court looks to see what structure is described in the specification for performing the claims function. Anascape asks the Court to look to the specification and import the structure described there into the claim before determining whether the claim itself recites sufficient structure to overcome the presumption.

In the end, Anascape's assertions that "electronics means" and "active electronics means" recite "sufficiently definite structure" contradict the Federal Circuit's law and are supported by no documentation or testimony. Anascape has failed to overcome the legal presumption that, having chosen to draft these claim terms using the phrase "means for" performing a function, it invoked the provisions of § 112, ¶ 6.

D. Disputed Term Group 11: "snap-through"
('802 Patent, Claims 5-6)

PROPOSED CONSTRUCTION
able to bow downward with a snap or click

Both parties agree that "snap-through" means "able to bow downward with a snap or click," but Anascape asks the Court to include the additional requirement that the snap or click be "user discernible." Apparently, Anascape hopes to use this subjective requirement to distinguish prior art written documents, which may describe a click or snap but, might not expressly state that the click is sufficiently audible to be heard by some user. The dispute, while seemingly small, is vastly different in effect. Anascape's construction should be rejected because it introduces a subjective "hearing" requirement that would cause the claim to be dependent on the varying abilities of each different individual. Such a construction, if adopted by the Court, would render the claims containing this term fatally indefinite under the Federal Circuit's case law interpreting 35 U.S.C. § 112, ¶ 2.

As discussed in more detail in Microsoft's Markman Brief for the '700 patent, a claim term is indefinite, and thus invalid, if it is a term that depends on the subjective opinion of a user and the claim or patent fails to provide an "objective anchor." *See, e.g.*, *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350-51 (Fed. Cir. 2005) (affirming summary judgment that the subjective term "aesthetically pleasing" was indefinite as a matter of law because patent did not "set forth an objective way to determine whether an interface screen is 'aesthetically pleasing.'"); *Halliburton Energy Servs., Inc. v. M-I, LLC*, 456 F. Supp. 2d 811, 817-19 (E.D. Tex. 1006) (Davis, J.) (granting summary judgment that "fragile gel" is indefinite because any construction would include subjective requirements such as "easily transitions," "easily disrupted or thinned," "less gel-like," and "more liquid-like," none of provide an objective boundary for

the term); *Leggett & Platt, Inc. v. Vutek, Inc.*, 2006 WL 3813677, at *7-*9 (E.D. Mo. Dec. 26, 2006) (holding that claim requirement of "acceptable print quality" was indefinite because it relied on a user's subjective determination); *cf. Rackable Sys., Inc. v. Super Micro Computer, Inc.*, 2006 WL 3065577, at *6-7 (N.D. Cal. Oct. 27, 2006) ("The court rejects both parties' constructions [of the term 'front'] to the extent that they refer to a 'user.' … [R]eference to 'user' renders the term indefinite because its scope depends 'solely on the unrestrained subjective [purpose] of a particular individual purportedly practicing the invention.'").

Because individuals can have very different sensitivities for hearing, whether a snap or click is loud enough to be user-discernible will necessarily vary with each user. To illustrate the subjectivity of the limitation, assume that two individuals attempt to determine whether a game controller meets the claim limitation under Anascape's "user discernible" hearing test. One individual has exceptional hearing, while the other has hearing that is not as good. The person with exceptional hearing might detect the snap of the dome, but the other might not. Thus, the same controller would infringe as to the first person, but it would not infringe as to the second person—at least using Anascape's subjective construction. How are members of the public or competitors to know whether their products avoid infringement of Anascape's patent when infringement itself is determined based on subjective factors, such as the hearing ability of a given user or the ambient noise in which the controller is used.

As such, under Anascape's proposed construction, the bounds of the claim (i.e., whether an accused device or a prior art device has a snap or click that is "user discernible" would be entirely dependent on each user's individual subjective perception. The Court should reject Anascape's efforts to read in a fatally subjective "hearing" test to this claim term.

V. CONCLUSION

For the foregoing reasons, Microsoft respectfully requests that the court read the claim terms in light of the specifications of which they are a part and adopt its proposed constructions.

Respectfully submitted,

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By: /s/ J. Christopher Carraway

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CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the foregoing document and exhibits has been served on Plaintiff via filing with the Court's ECF system.

By:/s/ J. Christopher Carraway
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