EXHIBIT A

'218 PATENT

Feb. 5, 2010 JCCS	Feb. 22, 2010 Summary	Apr. 9, 2010 Deposition	May 7, 2010 Declaration
Elan's Proposed Construction of "cursor control operations": providing of positional data to effect movement of the cursor (i.e., cursor tracking operation). Intrinsic Evidence: '218 patent cols. 6:11-13. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the disputed claim terms. Joint Claim Construction and Prehearing Statement ("JCCS"), Ex. C at 22.	I may provide my opinion that the term "cursor control operation" means "providing cursor positioning data to effect movement of the cursor." One of ordinary skill in the art would understand that term on its face to involve the control, i.e. movement, of the cursor on a display screen. That understanding is confirmed by the patent. At 6:9-13 the '218 patent expressly states that a "cursor control operation" is a cursor tracking operation. That is, an operation that controls the movement of the cursor on the screen. Summary of Testimony and Opinions of Robert Dezmelyk ("Dezmelyk Summ.") at ¶ 36.	Q. All right. And I think what you said in your report at paragraph 36 is that a cursor control operation means providing cursor positioning data to effect movement of the cursor; is that right? A. Well, I said that it's a cursor tracking operation that controls the movement of the cursor on the screen. Q. Where did you say that? I didn't see that word "tracking," so maybe you can point that out to me. A. Well, we're talking about my paragraph 36, and I note that, you know, at 6:9-13, "The '218 patent expressly states that a cursor control operation is a cursor tracking operation. That is, an operation that controls the movement of the cursor on the screen." Deposition Transcript of Robert Dezmelyk ("Dezmelyk Tr.") at 253:2-15.	26. In my opinion, the term "cursor control operation" means "providing positional data to effect movement of the cursor (i.e. cursor tracking operation)." One of ordinary skill in the art would understand that term on its face to involve controlling the movement of the cursor on a display screen. Reading the patent specification confirms my understanding. At 6:9-13 the '218 patent expressly states that a "cursor control operation" is a cursor tracking operation. Cursor "tracking" refers to controlling the movement of the cursor on the screen to reflect the user's interaction with the input device. The '218 patent states, "[t]hus, positional data relating to the user's contact with the touch-sensitive input device is supplied to the computer system in order to effectuate cursor movement on the

		Q. All right. So now, with that construction in mind that you've provided there of what a cursor control operation is, can you point out to me where in the specification there are described three cursor control operations, a first one, a second one and a third one that are based on the duration of contact and gap intervals? THE REPORTER: Slow down. THE WITNESS: I'll just read the – "if the first contact interval lasts longer than the maximum tap interval," and then there's an example here in parentheses, "i.e., if T subscript T1 is greater than T subscript max, the operation of the touch-sensitive cursor controlling input device during the first contact interval is identified as a cursor control operation, i.e., a cursor tracking operation." And then it goes on to, "Thus, positional data relating to user's contact with a touch-sensitive input device is	computer screen." 6:14-17. Nowhere in the patent is the phrase "cursor control operation" used to describe operations that do not involve providing positional information.[2] Rather, when the patent describes button functions (click, double click, etc.) it uses the term "control operation." Thus I understand that the inclusion of the word "cursor" in the phrase "cursor control operation" refers to control of the cursor on the screen, i.e. its location and movement, rather that operations performed at a particular location, such as selection of an object (click) or launching a program or routine (doubleclick). [2] If "cursor control operation" could mean a button function, like a click, then the method described in the patent at column 6, lines 9 - 13 to determine whether a tap or cursor tracking occurred would be non functional.

		supplied to the computer system in order to effectuate cursor movement on the computer screen." Now, going back to understand the context of this to column 5, there's a section which deals with – I'll just read the whole paragraph beginning at column 5, line 5. "Consequently, touchpad 200 generates x, y and z data pertaining to the user's contact with the touchpad, e.g., pertaining to the position of the operator's finger on the touchpad, over some region in the x, y and z directions. "Velocities, accelerations, timing differentials and signal strengths may be determined from this data string. As mentioned below, when these parameters are considered along with prior events, it is possible to discern between cursor manipulation, click, multi-click, drag, click-and-drag, and multi-click and drag operations." And if we look about what	

		some of these operations are, cursor manipulation would be just simply positioning the cursor. Click would be a button press and release, multi-click would be some set of those in close proximity, drag is the operation wherein the button is down and then there's motion. Click-and-drag as described here would be a click immediately followed by a drag. So it would be down, up, back down, and then motion. And then the next one there would be a multi-click-and-drag operation, which would be something on the order of down, up, down, up, down, drag. So to the extent that there's three cursor control operations you asked me to identify, certainly a cursor positioning would be one, dragging would be two, click-and-drag would be three, and multi-click and dragging would be four. Dezmelyk Tr. at 255:1-257:7.	

'659 PATENT

Feb. 5, 2010 JCCS	Feb. 22, 2010 Summary	Apr. 9, 2010 Deposition	May 7, 2010 Declaration
Elan's Proposed Construction of "native sensor coordinates": coordinates indicating the absolute position of an object on or near the touch pad. Intrinsic Evidence: '659 patent cols. 2:7-3:19. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the disputed claim terms. JCCS, Ex. D at 31.	I may provide in my opinion that, "Native sensor coordinates" are coordinates indicating the absolute position of an object on or near the touch pad. Those coordinates (x, y, r, θ , etc.) are calculated from the data acquired from the sensors and reflect a point on the surface of the touchpad. *See* 5:38-48. Dezmelyk Summ. at ¶ 41.	Q. That's on column 20. Or am I looking at the wrong section of the claim? A. Right, that phrase, "sensors configured to map the touchpad surface into native sensor coordinates," appears in the first -- in claim 1, for instance, it says, "a touchpad having a surface and one or more sensors configured to map the touchpad surface into native sensor coordinates." Q. And you have offered the opinion that what that means is that the sensors that are described in that element there of claim 1 are configured to produce signals that indicate native sensor coordinates; right? A. Right. That's what I'm saying, that the sensors are producing signals that indicate or can be used to determine the coordinates of the object. Q. And -- A. In other words – I'm sorry.	27. I understand that the parties have provided different proposed constructions of the claim element "sensors configured to map the touchpad surface into native sensor coordinates." In the first place, in my opinion, one of ordinary skill in the art would understand "native sensor coordinates" to mean coordinates indicating the absolute position of an object on or near the touch pad." As the patent explains, the coordinates are used to determine the point where the finger makes contact with the touchpad surface. 2:17-25 (x,y coordinates define the position of a finger for a Cartesian coordinate system, for polar coordinates the radius r, and the angle θ define the position of a finger); Those coordinates (x,y, r,θ, etc.) are calculated from the data acquired from the sensors and reflect a point on

		Sorry for a long break there. But if we look at column 5 in the patent, roughly 37 or so, line 37, says, "the sensor of the touchpad 36 are configured" -- it literally reads "produce signals," but I believe he means to say "configured to produce signals associated with the absolute position of an object on or near the touchpad. "In most cases, the sensors of the touchpad 36 map the touchpad plane into native or physical sensor coordinates 40. The native sensor coordinates 40 may be based on Cartesian coordinates or Polar coordinates as shown." Then it goes on to explain that "when Cartesian, the native sensor coordinates 40 typically include" – I'm sorry, my mistake in reading – "typically correspond to X and Y coordinates and then a corresponding Polar, as shown, the native sensor coordinates typically correspond to radial and angular coordinates r theta."	the surface of the touchpad. See 2:49-52 "The sensors of the touch pad 36 are configured produce signals associated with the absolute position of an object on or near the touch pad 36. In most cases, the sensors of the touch pad 36 map the touch pad plane into native or physical sensor coordinates 40." 5:38-48.

		And then it says that you can have a bunch of different types of, you know, resistive optical, et cetera. Dezmelyk Tr. at 245:8-246:20.	
Elan's Proposed Construction of "sensors configured to map the touchpad surface into native sensor coordinates": sensors configured to produce signals indicating native sensor coordinates. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the disputed claim terms. JCCS, Ex. D at 28. Elan's Proposed Construction of "native sensor coordinates": coordinates indicating the absolute position of an object on or near the touch pad. Intrinsic Evidence: '659 patent cols. 2:7-3:19. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art	I may provide in my opinion that, "Native sensor coordinates" are coordinates indicating the absolute position of an object on or near the touch pad. Those coordinates (x, y, r, θ , etc.) are calculated from the data acquired from the sensors and reflect a point on the surface of the touchpad. *See* 5:38-48. Dezmelyk Summ. at ¶ 41. I may also testify that "Sensors configured to map the touchpad surface into native sensor coordinates" means sensors configured to produce signals indicating native sensor coordinates. The mapping of the surface into native sensor coordinates depends upon the type of sensor, and the design of the sensing electronics as discussed. Dezmelyk Summ. at ¶ 42.	Q. And so there's some processing that goes on by a chip or a computer or software or something that then takes those raw values of amps or volts or current or whatever and then says for each of the sensors, aha, this is where that sensor is located? A. No, this is not where the sensor's located, but this is where the object's located that you're trying to sense the position of. Q. Which object? A finger or a stylus or something like that? A. Right. In other words, there's -- there are sensors that can tell you where they're located. That is, you can obtain the location of the sensor. But the type of sensing devices that are, you know, we're discussing here today are devices that are intended to identify the location of an	28. Apple's proposed construction does not clarify or further define this term. Rather, Apple substitutes the term "sensor coordinates of the touchpad" for the claim term "native sensor coordinates." In my view the phrase "sensor coordinates" implies the coordinates of the sensors themselves. While the sensors may be located at particular coordinates, those locations do not define the native sensor coordinates, because the sensors are configured to provide data that allows a finger position to be detected with considerable accuracy when the finger location is between the physical sensors.

would have read and understood the disputed claim terms. JCCS, Ex. D at 31.		object usually in close proximity to. Q. Such as a finger or a stylus -- A. Right, right. Q. -- or what-have-you? A. You want to know where the finger is on the touchpad, touch screen, whatever. You don't want to know where is the touchpad relative to the room boundaries or relative, you know, to its place on the 8 planet. Q. I understand. A. That's another kind of sensing. Q. Got it. All right. Paragraph 42 you say, "I may also testify that, 'Sensors configured to map the touchpad surface into native sensor coordinates' means sensors configured to produce signals indicating native sensor coordinates." Do you see that? A. Yes, I do. Q. And what are you relying on as support for that proposition in the	

		specification? A. Well, the same citation and probably other places, and I think this -- the real point I'm trying to make here is that the coordinates in question are the coordinates of the object, not what might be seen as the coordinates of the sensor itself. Dezmelyk Tr. at 243:9-244:25. Q. That's on column 20. Or am I looking at the wrong section of the claim? A. Right, that phrase, "sensors configured to map the touchpad surface into native sensor coordinates," appears in the first -- in claim 1, for instance, it says, "a touchpad having a surface and one or more sensors configured to map the touchpad surface into native sensor coordinates." Q. And you have offered the opinion that what that means is that the sensors that are described in that element there of claim 1 are configured to produce signals that indicate native sensor coordinates;	

		right? A. Right. That's what I'm saying, that the sensors are producing signals that indicate or can be used to determine the coordinates of the object. Q. And -- A. In other words – I'm sorry. Sorry for a long break there. But if we look at column 5 in the patent, roughly 37 or so, line 37, says, "the sensor of the touchpad 36 are configured" -- it literally reads "produce signals," but I believe he means to say "configured to produce signals associated with the absolute position of an object on or near the touchpad. "In most cases, the sensors of the touchpad 36 map the touchpad plane into native or physical sensor coordinates 40. The native sensor coordinates 40 may be based on Cartesian coordinates or Polar coordinates as shown." Then it goes on to explain that "when Cartesian, the native sensor coordinates 40 typically include" – I'm sorry, my	

		mistake in reading – “typically correspond to X and Y coordinates and then a corresponding Polar, as shown, the native sensor coordinates typically correspond to radial and angular coordinates r theta.” And then it says that you can have a bunch of different types of, you know, resistive optical, et cetera. Q. So under your interpretation, how is it that one of these signals that is produced by a sensor, quote/unquote, indicates a native sensor coordinate? How does a sensor do that? A. Well, the outputs of the sensor -- the sensor is designed so that the signals it generates, potentially when it's excited by some excitation, but the signals it generates are correlated to position. So, for instance, to give kind of an example of this in a literal sense, if you were to make a capacitive, well, sensing grid of the type we’ve been talking	

		about, it's typical that you put the grid lines down in a known spot so that when you get signals from them you can calculate the position of the object that's causing the capacitance. If you put the capacitive pass down randomly, you know, in some hypothetical, then you wouldn't be able to calculate where the object was. You'd see a bunch of varying capacitance, but you wouldn't know, you know, where it came from. Right? I mean, so you're configuring the sensors such that the signals it generates are indicative or actually relate to position. Dezmelyk Tr. at 245:8-247:18.	
Elan's Proposed Construction of "sensors configured to map the touchpad surface into native sensor coordinates": sensors configured to produce signals indicating native sensor coordinates. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding	I may also testify that "Sensors configured to map the touchpad surface into native sensor coordinates" means sensors configured to produce signals indicating native sensor coordinates. The mapping of the surface into native sensor coordinates depends upon the type of sensor, and the design	Q. That's on column 20. Or am I looking at the wrong section of the claim? A. Right, that phrase, "sensors configured to map the touchpad surface into native sensor coordinates," appears in the first -- in claim 1, for instance, it says, "a touchpad having a surface and one or more	29. In my opinion, "sensors configured to map the touchpad surface into native sensor coordinates" would be understood by one of ordinary skill in the art to mean "sensors configured to produce signals indicating native sensor coordinates." The patent explains that "The touch pad

how one skilled in the art would have read and understood the disputed claim terms. JCCS, Ex. D at 28. Elan's Proposed Construction of "adjust the native values": The controller, after receiving the native values, adjusts the form of native values. This may include converting multiple native values into a single native value. Intrinsic Evidence: '659 patent cols. 2:7-4:8. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the disputed claim terms. JCCS, Ex. D at 36.	of the sensing electronics as discussed. Dezmelyk Summ. at ¶ 42.	sensors configured to map the touchpad surface into native sensor coordinates." Q. And you have offered the opinion that what that means is that the sensors that are described in that element there of claim 1 are configured to produce signals that indicate native sensor coordinates; right? A. Right. That's what I'm saying, that the sensors are producing signals that indicate or can be used to determine the coordinates of the object. Q. And -- A. In other words – I'm sorry. Sorry for a long break there. But if we look at column 5 in the patent, roughly 37 or so, line 37, says, "the sensor of the touchpad 36 are configured" -- it literally reads "produce signals," but I believe he means to say "configured to produce signals associated with the absolute position of an object on or near the touchpad. "In most cases, the sensors of the touchpad 36 map the	assembly includes a touch pad having one or more sensors that map the touch pad plane into native sensor coordinates. The touch pad assembly also includes a controller that . . . receives the native values of the native sensor coordinates from the sensors. . ." 3:24-30 The mapping of the surface into native sensor coordinates depends upon the kind of sensor, and the design of the sensing electronics, as discussed above.

		touchpad plane into native or physical sensor coordinates 40. The native sensor coordinates 40 may be based on Cartesian coordinates or Polar coordinates as shown." Then it goes on to explain that "when Cartesian, the native sensor coordinates 40 typically include" – I'm sorry, my mistake in reading – "typically correspond to X and Y coordinates and then a corresponding Polar, as shown, the native sensor coordinates typically correspond to radial and angular coordinates r theta." And then it says that you can have a bunch of different types of, you know, resistive optical, et cetera. Dezmelyk Tr. at 245:8-246:20.	
Elan's Proposed Construction of "one or more logical device units": discrete user actuation zones representing areas of the touch pad encompassing groups of native sensor coordinates. Intrinsic Evidence: '659 patent cols. . . . 9:58-10:45.	I may offer in my opinion that "logical device units" would be understood by one of ordinary skill in the art to mean "discrete user actuation zones representing areas of the touchpad encompassing groups of native sensor coordinates."	Q. There's a reference to a touchpad program containing virtual actuation zone profiles that describe how the virtual actuation zones are distributed around the touchpad relative to the data sensor coordinates. You see what I'm referring to?	30. In my opinion, "logical device units" would be understood by one of ordinary skill in the art to mean "discrete user actuation zones representing areas of the touchpad encompassing groups of native sensor coordinates."

Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the disputed claim terms. JCCS, Ex. D at 34.	This definition is consistent with the usage of this term by those skilled in the art and with the description in the patent. Dezmelyk Summ. at ¶ 43.	A. Yes. Q. So the idea there is that I can have a program that stores not just one but potentially multiple virtual actuation zone profiles; correct? A. Right. The idea -- I mean, 38 is shown back in figure 2. It's a -- like a microcontroller. And it notes that it may store this idea of a touchpad program which is related to the user interface, the user interface is shown sort of the whole device, and it seems that yes -- I don't see that there's a necessary construct in that paragraph -- I mean, it says profiles, but it seems that there may be one set of them. I mean, I don't know if it's important, but just sort of parsing that paragraph by itself it says that the touch paid may store a touchpad program. So that would be a single program, for controlling different aspects of the user interface. For example, the touchpad program may continue virtual actuation zone profiles that describe how	The patent explains that "clusters of native sensor coordinates . . . define one logical device unit." 10:23-25 and "[i]n most cases, the raw number of slices in the form of native sensor coordinates are grouped into a more logical number of slices in the form of logical device units (e.g., virtual actuation zones). 10:42-45 This definition is consistent with the use of this term by those skilled in the art and with the description in the patent.

		the virtual actuation zones are distributed. I take "profile" there to mean that you may have multiple actuation zone, in essence, data structures to describe the zones. Not necessarily that you have different sets of them, right, but that you have, say, five zones and therefore, you would have five profiles, one per zone, as the data structures that represent that. Dezmelyk Tr. at 236:2-237:10.	

'352 PATENT

Feb. 5, 2010 JCCS	Feb. 22, 2010 Summary	Apr. 9, 2010 Deposition	May 7, 2010 Declaration
Elan's Proposed Construction of "control function": A function in response to contact with the touchpad, other than or in addition to cursor movement. Intrinsic Evidence: Col 11:15-35; Col. 11:55:12-13; Figs. 7A-7F and associated text. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art	The patent also discloses that firmware or software may be programmed to perform the function of selecting a click function or any other appropriate control signal. The patent gives a number of examples of such control signals in Figs. 7-9 and related text. Those examples include emulating mouse button click and double click signals,	Q. Now, is that a function, that is, providing a click function in response to the removal and reappearance of said second maxima within a predetermined period of time, is that a function that's going to be performed and implemented by a computer? A. Normally. I mean, either by the microcontroller or the host computer.	31. In my opinion, the "means for selecting an appropriate control function" limitation found in Claim 19 of the '352 patent has a structure which consists of Analog multiplexer 45; Capacitance measuring circuit 70; A/D convertor 80, Microcontroller 60; and/or software, firmware or hardware performing the claimed function. Practitioners of

would have read and understood the function and corresponding structure. JCCS, Ex. A at 6-7. Elan's Proposed Construction of "means for selecting an appropriate control function": The corresponding structure is Analog multiplexor 45; Capacitance measuring circuit 70; A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 8-9.	selecting an object, dragging an object and other traditional input functions. The click function is included in the algorithm disclosed in Figs. 8 and 9. Determining a control function and writing a software or firmware routine to interpret contact sequences to implement that control function was well within the knowledge of those skilled in the art at the time of the '352 patent. Dezmelyk Summ. at ¶ 31.	Q. Is there -- to perform that sort of processing there's going to be some sort of algorithm that's going to be processed; is that right? A. There are steps you would take, right. You would write software to do that. Q. Is there a description of that software algorithm in the '352 patent for how to do that? A. Well, there's a whole section about dealing with and processing and understanding how many fingers are touching and being removed and how you do scans and know how many fingers are on the surface. I think if we -- basically the entire section of -- you know, going down, starting at 11 and continuing through 13 talks about examples of how you would determine, you know, multiple fingers and then what -- you know, how you would scan repeatedly and look at whether you had one fingers, two fingers, et cetera. So that is sufficient to explain	ordinary skill in the art at the time of the filing of the '352 patent, based on their training, and the techniques already known to them, would know how to program controller firmware, driver software running on the host or the like in order to assign particular control functions to specific gestures, where the gestures are defined by combinations of the number of fingers detected, the amount of time the fingers are detected, and any movement of the fingers. [3] The '352 patent sets forth a number of possible assignments of functions to gestures, and provides algorithms for determining the number of fingers detected, the amount of time during which the fingers are detected in contact, and the position and movement of the fingers on the touchpad, and explains that "[i]f a control function is intended, the specific control function can then be identified. 12:11-13. The patent explains how the combinations of finger

		the process of doing that, particularly in light of what people already know how to do. Q. And is that description a description of an algorithm that's going to tell you how to provide that click function in response to the removal and reappearance of the second maxima within a predetermined period of time? A. Well, I think the description there is more than sufficient for a practitioner at the time to know what to do. It may not be expressed in like a flow chart, but it's set forth, you know, in description in a way that would be sufficient so someone knew what to do. Q. There's a functional description in there, correct, in those columns, 12, 13? A. I don't know how you use the word "functional." There's a description of what to do in essence. Q. Yeah, what functions to perform, what to do, as you just said.	contacts shown in Figure 7 can be assigned to "any number of cursor movement and control functions" including "cursor movement", a "select" function, a "drag" function, a "double-click" function, a click of a middle button, a right mouse button click, a "multi-sequence function", such as scrolling, an "ink" function, and the "entry of variable values". *See* 13:1-57. The listed control functions themselves were well known to practitioners at the time the application for the '352 patent was filed, and they all existed in the prior art. The select, drag, double-click, middle button click, and right mouse button click functions all had standardized representations both at the device level and at the host system software level which involved setting and clearing single data bits either in data packets reported by the device to the host, or in data structures in the host memory.

		What I'm asking is, is there some sort of description of software algorithm that would say this is the way to do that and this is how you would process that in order to accomplish that function? A. Well, I think the description here does give the information to the person who's the practitioner that they need to have. Q. To do what? A. To do -- to make that determination. In other words, to say if -- the process of -- say we're taking the click events in the simple case of a button up, button down. Practitioners at the time definitely know, you know, how to make a packet that's button up or button down. That's a long-known understood concept in mouse design. So the person who's reading this already knows about that background and knows about, you know, I generate a down packet, I generate an up packet. I mean, they know about that	The cursor movement, scroll, ink and entry of variable values functions also all had well known standardized representations both at the device data packet level and at the host system software level which involved setting one or two (in the case of the cursor coordinates) variables in a the standardized data structure. 3 As an example, the '218 patent which describes methods to generate button values based on the timing and duration of finger contact with a touchpad is prior art to the '352 patent.

		part of it. And so when look at, to me, reading the sections that I pointed out, and I can try to get you the more detailed lines by, you know, picking them out for you, it tells you what you need to do to do that. Dezmelyk Tr. at 209:5-211:23.	
Elan's Proposed Construction of "control function": A function in response to contact with the touchpad, other than or in addition to cursor movement. Intrinsic Evidence: Col 11:15-35; Col. 11:55:12-13; Figs. 7A-7F and associated text. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 6-7.	The patent also discloses that firmware or software may be programmed to perform the function of selecting a click function or any other appropriate control signal. The patent gives a number of examples of such control signals in Figs. 7-9 and related text. Those examples include emulating mouse button click and double click signals, selecting an object, dragging an object and other traditional input functions. The click function is included in the algorithm disclosed in Figs. 8 and 9. Determining a control function and writing a software or firmware routine to interpret contact sequences to implement that control function was well	Q. But the algorithms that are described in figures 8 and 9 and 5 and 6 and all, those aren't setting forth in an algorithm how you would perform that function of providing a click function in response to the removal and reappearance of a second maxima within a predetermined period of time; correct? A. Well, I don't agree with your characterization. Q. So point out to me in figure 8 or figure 9 or – A. Let's turn to – Q. -- or figure 5 or 6 where that's described. A. Let's look just for figure 8-1 in a minute. And look at the bottom of figure 8-1 where there's been some processing.	32. The patent provides Figs. 8 and 9 as an example of a flowchart illustrating the software or firmware to perform the claimed function, which it also states is analogous to the flowcharts of Figs. 5 and 6. In particular, Figs. 8 and 9 illustrate the sticky dragging gesture illustrated in Figs. 7F-1 and 7F-2, but is "applicable to the remaining functions". 13:59-61. One of ordinary skill in the art would understand Figs. 8 and 9 to be an example, and would know how to adapt or modify the flowcharts shown to reflect the particular sensing devices, host computer and application programs to implement an appropriate control function.

	within the knowledge of those skilled in the art at the time of the '352 patent. Dezmelyk Summ. at ¶ 31.	There's an X compute and Y compute. There's been some determination of the number of fingers that are present, and then it turns the page onto the remainder of figure 8-2, which is on sheet 15 of the patent. And then it -- just as an exemplary example here, I won't to try to say exhaustively, but if you look at decision point 905, if the test is that the button was previously up and we have finger 2, then we're going to take the step of reporting button equals down, and we're going to set button previous equal to down. And then at a later scan we're going to come back through here again, and perhaps we're going to find that we were in -- the case listed as 910 in that decision block, if we fall into that decision block, button previous would be down, in other words, if that, and, you know, we have one of these cases, and then we're going to, of course, report button up. The process of reporting a	

		button down to the host system followed by a button up report would constitute a click to the host processor. In other words, the event of a button down and a button up. A practitioner at the time, once you tell them report button equals down, they understand what that means. In other words, that says make the serial output bytes in the packet that match up with a button down event on a mouse, which is a kind of standardized known operation. So I think they've set forth here a description of how to do it. Dezmelyk Tr. at 212:7-214:1. Q. I'm just asking a question. I'm just trying to understand whether there is something set out in figure 8-1 or figure 8-2 or anywhere else in the patent that tells you specifically that it is the second maximum that appears and is removed and reappears, whether that is described in any of these algorithms, how you would	

		determine that it's the removal and reappearance of the second maxima. A. Okay. Well, let me try to explain that. If we look at column 12, let me just see if I can go back to this. Let me just review it for a moment here. Okay. Look at the bottom of column 13. I direct you to that. And again, this has to be taken in a totality. So it's not like you find one exact spot. You have to read the entire document to understand it as a practitioner, and that gives you the understanding of it. But if we look at this paragraph starting at approximately line 59, referring next to figures 8 and 9, the generalized case associated with figures 7-F1 and 2 but also applicable to the remaining functions may be better appreciated. In the exemplary algorithms shown in figures 8 and 9 -- and 8, of course, is what? 8-1 is what we've been looking at. "A determination is made whether zero, one or two	

		fingers are in contact with the touchpad. Depending on how many fingers are identified, various operations are permitted. "It will be appreciated that figure 8 is an analogous to figure 5" and so on. For convenience, steps unchanged are left in, and then it describes how that process goes. And when you look at that and looking at the number of fingers, that explains to you, to me at least as a practitioner, what you would do, the type of steps would you do to do this determination of providing a click function in response to the removal and reappearance. Dezmelyk Tr. at 215:8-216:19.	
Elan's Proposed Construction of "means for providing an indication": The corresponding structure is Analog multiplexor 45: Capacitance measuring circuit 70: A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function.			33. The patent also explains that the function of selecting an appropriate control function, like the other aspects of the claimed invention, can be performed in firmware running on the microcontroller 60, but can also be implemented as software running on the host, 15:74-16:5, or in hardware

Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 7-8. Elan's Proposed Construction of "means for selecting an appropriate control function": The corresponding structure is Analog multiplexor 45; Capacitance measuring circuit 70; A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 8-9. Elan's Proposed Construction of "means for detecting a			logic. 7:1-3.

distance between said first and second maxima": The corresponding structure is Analog multiplexor 45: Capacitance measuring circuit 70: A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 9-10. Elan's Proposed Construction of "means for providing a click function in response to the removal and reappearance of said second maxima within a predetermined period of time": The corresponding structure is Analog multiplexor 45: Capacitance measuring circuit 70: A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware			

performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 10-11. Elan's Proposed Construction of "means for calculating first and second centroids corresponding to said first and second fingers": The corresponding structure is Analog multiplexor 45: Capacitance measuring circuit 70: A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS,			

Ex. A at 11-12.			
Elan's Proposed Construction of "control function": A function in response to contact with the touchpad, other than or in addition to cursor movement. Intrinsic Evidence: Col 11:15-35; Col. 11:55:12-13; Figs. 7A-7F and associated text. Extrinsic Evidence: Mr. Dezmelyk is expected to provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 6-7. Elan's Proposed Construction of "means for selecting an appropriate control function": The <u>corresponding structure</u> is Analog multiplexor 45; Capacitance measuring circuit 70; A to D convertor 80, Microcontroller 60 and/or software, firmware or hardware performing the claimed function. Extrinsic Evidence: Mr. Dezmelyk is expected to	I may testify that the patent does disclose sufficient structure for the functions of "selecting an appropriate control function" (claim 19). Dezmelyk Summ. at ¶ 29. The patent also discloses that firmware or software may be programmed to perform the function of selecting a click function or any other appropriate control signal. The patent gives a number of examples of such control signals in Figs. 7-9 and related text. Those examples include emulating mouse button click and double click signals, selecting an object, dragging an object and other traditional input functions. The click function is included in the algorithm disclosed in Figs. 8 and 9. Determining a control function and writing a software or firmware routine to interpret contact sequences to implement that control function was well within the knowledge of those	A: Okay. I would direct you to -- probably the best place to explain it would be column 5. Let's see. It goes to, like, maybe line 27 after the business about the other patent with the simultaneous sensing, and it says the rows and columns are connected to an analog multiplexor 45 through a plurality of X direction conductors and a plurality of Y column direction conductors 55, one conductor for each row and each column. "Under the control of a microcontroller 60, the analog multiplexor selects which traces of the matrix will be sampled, and the output of those traces is then provided to a capacitance measuring circuit." And then they go on to describe some other ways in which people, you know, measure capacitance or cite to, I guess, a patent which describes that. So the analog multiplexor's role here is to select which of	34. In addition to hardware, software or firmware implementing the necessary steps, the patent also discloses that the sensing hardware is associated with this function. The processing of Fig. 8 starts at step 405 to "scan the conductors; store in RAM." Fig. 8-1; 14:3-6. The patent states that this step is achieved using the multiplexer, capacitance measuring circuit, and A/D convertor under the control of the microcontroller 60. "Under the control of microcontroller 60, the analog multiplexor 45 selects which traces of the matrix 30 will be sampled, and the output of those traces is then supplied to a capacitance measuring circuit 70." 5:32-35. The A/D converter supplies the signal to the microcontroller to "form, among other things, a finger profile for one or more fingers, X-Y cursor data, and control signals." 5:50-52. The repetitive scanning of the

provide testimony regarding how one skilled in the art would have read and understood the function and corresponding structure. JCCS, Ex. A at 8-9.	skilled in the art at the time of the '352 patent. Dezmelyk Summ. at ¶ 31.	the conductors you're measuring the capacitance along that trace in this particular implementation. Dezmelyk Tr. at 175:4-23. Q. What is the function of that circuit, circuit 70 in figure 2? A. Well, 70 is basically, as it's set forth – again, I direct you to column 5 and about 45. It converts capacitance values from a circuit 70 – well, the output of 70 is the input – 70's basically giving you, you know, kind of capacitance to voltage. In this case it looks from A to D it's capacitance to voltage. And as we talked about before, there's circuits – there's a variety of circuits which will give you a measured signal based on the amount of capacitance that's presented on a conductor connected to that. This particular one, I was using the RC oscillator example before. Since this is, you know, being connected to an A to D converter, more likely it's	touchpad generates ". . . a series of scans in which one or more fingers [are] found to be either present or absent in any given scan, with motion, or lack thereof, of the finger or fingers across the touch sensor interspersed between changes in the number of fingers in contact with the touchpad." 12:5-9. In light of this extensive disclosure of methods of selecting an appropriate control function based on a user's contacts with the touch pad, and the knowledge of those skilled in the art in the area of integrating input devices to host programs, it is my opinion that the '352 patent discloses ample structure corresponding to the function of "selecting a control function based upon a combination of a number of fingers detected, an amount of time said fingers are detected, and any movement of said fingers."

		some circuit which gives you an analog voltage level output that's proportional to the capacitance present on its input conductor. Dezmelyk Tr. at 176:14-177:7. Q. And what about the analog-to-digital converter box 80? What's the function of that? A. Well, again, in the narrow sense it does what it says it does. It takes an analog signal and converts it to a digital value so you can then process that in firmware in the microcontroller. Q. What values are those that it's converting from analog to digital? A. It's converting, in this example here, the value of capacitance of the selected conductor – the value generated – the analog value generated by 70, this capacitance measuring circuit, for the particular selected conductor or trace that you've selected with analog multiplexor at that point in	

		time, and it's converting that value into a digital representation. Q. And then – A. In the broad sense, again, it's part of the whole functionality of the sensing chain. Without it you're not going to have a functional device. Dezmelyk Tr. at 177:23-178:16. Q. Is there a description of that software algorithm in the '352 patent for how to do that? A. Well, there's a whole section about dealing with and processing and understanding how many fingers are touching and being removed and how you do scans and know how many fingers are on the surface. I think if we -- basically the entire section of -- you know, going down, starting at 11 and continuing through 13 talks about examples of how you would determine, you know, multiple fingers and then what -- you know, how you would	

		scan repeatedly and look at whether you had one fingers, two fingers, et cetera. So that is sufficient to explain the process of doing that, particularly in light of what people already know how to do. Q. And is that description a description of an algorithm that's going to tell you how to provide that click function in response to the removal and reappearance of the second maxima within a predetermined period of time? A. Well, I think the description there is more than sufficient for a practitioner at the time to know what to do. It may not be expressed in like a flow chart, but it's set forth, you know, in description in a way that would be sufficient so someone knew what to do. Dezmelyk Tr. at 209:17-210:18. Q. I'm just asking a question. I'm just trying to understand whether there is something set out in figure 8-1 or figure 8-2	

		or anywhere else in the patent that tells you specifically that it is the second maximum that appears and is removed and reappears, whether that is described in any of these algorithms, how you would determine that it's the removal and reappearance of the second maxima. A. Okay. Well, let me try to explain that. If we look at column 12, let me just see if I can go back to this. Let me just review it for a moment here. Okay. Look at the bottom of column 13. I direct you to that. And again, this has to be taken in a totality. So it's not like you find one exact spot. You have to read the entire document to understand it as a practitioner, and that gives you the understanding of it. But if we look at this paragraph starting at approximately line 59, referring next to figures 8 and 9, the generalized case associated with figures 7-F1 and 2 but also applicable to the remaining functions may be	

		better appreciated. In the exemplary algorithms shown in figures 8 and 9 -- and 8, of course, is what? 8-1 is what we've been looking at. "A determination is made whether zero, one or two fingers are in contact with the touchpad. Depending on how many fingers are identified, various operations are permitted. "It will be appreciated that figure 8 is an analogous to figure 5" and so on. For convenience, steps unchanged are left in, and then it describes how that process goes. And when you look at that and looking at the number of fingers, that explains to you, to me at least as a practitioner, what you would do, the type of steps would you do to do this determination of providing a click function in response to the removal and reappearance. Dezmelyk Tr. at 215:8-216:19.	