



Typhoon Touch Technologies, Inc. (“Typhoon”) filed this patent infringement action alleging that Defendants infringed certain claims of the ‘057 and ‘362 patents.

### APPLICABLE LAW

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In claim construction, courts examine the patent’s intrinsic evidence to define the patented invention’s scope. *See id.*; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). This intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term’s context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can also aid in determining the claim’s meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting

*Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he 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.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.* Also, the specification may resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Comme’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc., v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but

technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition is entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

The patents in suit also contain means-plus-function limitations that require construction. Where a claim limitation is expressed in “means plus function” language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112, ¶ 6 mandates that “such a claim limitation ‘be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.’” *Id.* (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts “must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations].” *Id.*

Construing a means-plus-function limitation involves multiple inquiries. “The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Id.* A “structure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Id.*

Moreover, the focus of the “corresponding structure” inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.*

## APPLICATION

### “General Purpose”

Claims 1-2 and 6-11 of the ‘057 patent contain the term “general purpose.” Typhoon suggests that the term means “not application dedicated, i.e., not pre-programmed for specific end uses in specific fields.” Defendants urge that the term needs no construction. To support its definition, Typhoon seizes on language in the background section of the patent explaining that “[h]andheld data collection devices [in the prior art] typically run dedicated, often single-function applications, which are preprogrammed for *specific end uses in specific fields . . .*” ‘057 Patent at 1:23-26 (emphasis added).

The patent’s claims use the word “general purpose” to describe a type of computer. *See e.g.*, ‘057 Patent at 31:12-13 (“A self contained, general-purpose, portable, keyboardless computer . . . .”). As noted by Defendants, Typhoon’s quoted language describes the *applications* run by handheld devices rather than the devices themselves. As the above-quoted language suggests, *applications* are dedicated, *computers* are not. As a result, it would be inappropriate to import the inventors’ description of prior art applications, into the patent’s limitation describing computers.

Further, Typhoon’s definition describes “general purpose” by defining what it is not, rather than what it is. The specification and prosecution history only specifically mention “general purpose” in contrast to prior art devices that are only capable of running single-function applications. *See* ‘057 Patent at 1:23-26, 42-44; Typhoon’s Opening Brief, Ex. E, Docket No. 340-11 at

TYPH\_000254. However, the term “general purpose” within the context of the entire specification is clearly meant to be broader than this distinction alone.

Rather, the specification makes numerous references to the type of computer contemplated by the inventors. These references suggest that a “general purpose” computer is simply one with a central processing unit (“CPU”) and memory. *See, e.g.*, ‘057 Patent at 2:46-50 (“The portable computer is self-contained in that it includes in a single compact housing all components necessary for computing—central processing unit (“CPU”), a memory . . . .”); 3:4-5 (“The CPU of the portable computer executes the application and processes the manually entered data pursuant to the application.”); 3:28-29 (“The CPU causes data corresponding to the response signals to be stored in memory.”). As the remainder of the claim limitations require that the “computer” have the ability to run multiple applications (accounting for the distinction suggested by the specific references to “general purpose” in the specification) and have both a CPU and memory, no further definition of “general purpose” is necessary or warranted. *See* ‘057 Patent at 31:23-28 (“a central processing unit connected to said memory means . . . and an application generator for generating said data collection applications”).

### **“Portable”**

The term “portable” appears in claims 1-2, 6-12, and 14 of the ‘057 patent and claims 1-8, 10 and 12 of the ‘362 patent. Typhoon suggests that the term means “easily carried around during use and not unwieldy.” Defendants urge that the term means “designed to be carried by an individual.” Thus, the parties agree that term requires that a device have the ability to be carried by an individual. However, the parties disagree over whether “portable” requires that a device be capable of operation while moving.

Both patents begin by describing “portable” devices in the prior art as “includ[ing] hand-held units and lap-top computers.” ‘362 Patent at 1:22-25; ‘057 Patent at 1:20-24. The patents also acknowledge that lap-top computers are generally not operated while being carried. *See* ‘057 patent at 1:51-52 (“the lap-top is intended for use while supported on the user’s lap, as the name imports”); ‘362 Patent at 1:51-52 (same). Typhoon’s proposed construction equates ambulatory use with portability. However, as the above-quoted passages suggest, the specification clearly distinguishes between a “portable” device and one which is capable of ambulatory use. Furthermore, the description of the invention describes “portability” in terms of “compact design” and describes an “optional” carrying case that “is specifically adapted for ambulatory use of the portable computer.” *See* ‘362 Patent at 4:42; ‘057 Patent 17:28-29, 45-56 & Fig. 14. Thus, there is clearly a distinction between ambulatory use and portability. The Court rejects Typhoon’s suggestion that portability requires ambulatory use.

However, Defendants’ suggestion that portability be by “design” introduces an element of subjectivity into the term that is not warranted by the claim language or specification. *See Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005) (“The scope of claim language cannot depend solely on the unrestrained subjective opinion of a particular individual purportedly practicing the invention.”). The essence of portability, as reflected in the specification, is not the fact that a device has the ability to move, but rather the ease with which it can be moved. *See* ‘057 Patent at 1:54-58 (describing lap-top as portable but having “unsymmetrical dimensions, bulkiness, [burdensome] weight, and [an] off-set center of gravity”). Accordingly, “portable” is defined as “physically configured to be easily carried by an individual.”

## **“keyboardless”**

The term “keyboardless” appears in claims 1-2, 6-12, and 14 of the ‘057 patent and claims 1-8, 10, and 12 of the ‘362 patent. Defendants define the term as “without a physical integrated keyboard.” Typhoon suggests that the term means “does not require a keyboard for use since it is equipped with a touch screen.” In effect, Typhoon’s definition limits the term to devices utilizing a “touch screen.” Typhoon’s construction is imported from a portion of the specification that mentions that “[t]he portable computer is keyboardless in that it does not require a keyboard for use since it is equipped with a touch screen.” ‘057 Patent at 2:57-59. Ultimately, the parties’ dispute centers over whether “keyboardless” is a negative limitation that restricts the invention from utilizing any kind of keyboard.

Initially, Typhoon’s definition must be rejected because it is overly restrictive and explains why the preferred embodiment of the invention fits into a “keyboardless” category rather than explaining what “keyboardless” means. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (“The purpose of claim construction is to determine the meaning and scope of the patent claims asserted to be infringed.”) (internal quotation marks omitted). Defendants are correct that the specification distinguishes integrated from non-integrated keyboards. *See* ‘057 Patent at 2:59-61 (“Nevertheless, [the invention] is provided with connections to hookup an external keyboard as well as a full range of peripherals . . .”). However, inherent in this same distinction is the understanding that peripheral keyboards are mechanical (non-virtual) keyboards. *See id.* at 2:61-63 (“and is capable of displaying an interactive, simulated keyboard by means of the input/output device”).

Similarly, Defendants’ use of the word “physical” fails to capture the full meaning of the

term as described in the specification. A virtual keyboard displayed on a touchscreen is nevertheless “physical.” *See* The American Heritage College Dictionary 1031 (3d ed. 1997) (defining “physical” as “of or relating to material things”). The specification distinguishes mechanically integrated keyboards from non-mechanically integrated keyboards rather than physical keyboards from non-physical keyboards. *See* ‘362 patent at 1:47-49 (“Entry of information is generally performed using a keyboard which is provided integrally in the lap-top computer’s housing or as a peripheral.”). Accordingly, the meaning of “keyboardless” in light of the specification is “without a mechanically integrated keyboard.”

### **“touch sensitive screen”**

Claims 1, 12, and 14 of the ‘057 patent contain the term “touch-sensitive screen.” Typhoon defines the term as “a screen which is responsive to the touch of a finger.” Defendants suggest that the term means “a device, on which a display’s output is shown, that recognizes inputs in response to touch.” The parties’ dispute surrounds whether 1) the term “screen” needs further definition in order to contrast it with the invention’s “display” and 2) whether “touch-sensitive” is limited to touch “by a finger.”

With regard to the first issue, the patent makes a distinction between a “display,” which is an output device that produces images viewable by the user, and a “touch-sensitive screen,” which is a separate device that receives input from the user. *See* ‘057 Patent at 2:53-55 (“The input/output device has a touch sensitive screen superimposed over a display, for example, a liquid crystal display (“LCD”).”). This distinction is expressed sufficiently in the claims themselves. *Id.* at 31:14-17 (“[A] combined input/output device including a display for displaying outputs on a touch-sensitive screen, said screen superimposed over said display . . .”). Thus, contrary to Defendants’ arguments,

there is no need to define “screen” with regard to its relationship with the display as that relationship is sufficiently communicated in the claim language. *See id.*

With regard to the second issue, the specification does not limit touch-sensitivity to “touch by a finger.” Typhoon cites to a number of references in the specification that clearly refer to a particular embodiment of the invention. *See, e.g., id.* at 10:38-41 (“A scale or bar graduated, *for example*, from 1 to 10 can be provided, which has a marker which moves in response to movement of a user’s finger across the bar.”) (emphasis added); 19:44-46 (explaining that a particular embodiment of the invention would have the ability to respond “with the touch of a finger!”). Additionally, neither the claims nor summary of the invention contain any reference to “touch by a finger.” It is clear from the context of Typhoon’s intrinsic citations that the inventor regarded “touch of a finger” to be a convenient example for explaining the operation of the touch-sensitivity, rather than intending to limit the term to only finger sensitivity.

This conclusion is bolstered by the intrinsic evidence showing that the inventor provided a host of prior art to the Patent and Trademark Office (“PTO”) describing “touch-sensitivity” that was sensitive to a variety of different stimuli. *See, i.e.,* U.S. Patent No. 4,653,086 (filed March 15, 1985) (disclosing touch sensitivity to a stylus or pen, but not sensitivity to a finger); U.S. Patent No. 4,555,699 (filed Jan. 10, 1983) (disclosing a data entry system using a stylus or finger and “touch-sensitive” tablet). Thus, the inventor indicated to the Patent and Trademark Office (“PTO”) that “touch sensitivity” based on various stimuli (not restricted to a “finger”) was well-known in the art and considered when conceiving of the invention described in the ‘057 patent. Considering both the intrinsic and extrinsic record, references in the specification to touch-sensitivity “with a finger,” were not meant to be definitional. Therefore, imputation of such a limitation into the meaning of “touch-

sensitive” would be improper. Accordingly, “touch-sensitive screen” is defined as “a screen which is responsive to touch.”

**“memory [means] for storing” and “for executing”**

The terms “memory for storing,” “memory means for storing,”<sup>1</sup> and “for executing” appear in claims 1, 12, and 14 of the ‘057 patent and claims 1, 10, and 12 of the ‘362 patent. The parties agree that the terms should be similarly defined but disagree over whether the limitations express a *requirement* or a *capability*. For context, claim 1 of the ‘362 patent requires “a memory *for storing* a data collection application and an operating system” and “a processing unit connected to said memory *for executing* said data collection application.” ‘362 Patent at 16:62-67. Also, by way of example, claim 12 of the ‘362 patent contains the limitation “a run-time executor *for executing* said application and said libraries to facilitate data collection operations.” *Id.* at 18:35-36. Typhoon suggests that the terms require no definition, but that the ordinary meaning of “for storing” and “for executing” indicate only a capability of performing the claims’ recited functions. Conversely, Defendants urge that “memory [means] for storing” be defined as “a memory that must perform the recited function” and “for executing” be defined as “the recited function must be performed.”

Typhoon’s argument is that the plain meaning of “for” indicates an ability, rather than a requirement. In support of this construction Typhoon cites *Optimal Recreation Solutions LLP v. Leading Edge Technologies, Inc.*, where the Federal Circuit opined that “memory means for storing the position of the golf cup” was not a means-plus-function limitation and that “memory” was defined as a “device capable of storing data.” 6 Fed. Appx. 873, 877-878. Importantly, the question of whether “for storing the position of the golf cup” required (rather than represented a capability)

---

<sup>1</sup> The parties have agreed that “memory means” is not a means-plus-function limitation.

that the “memory” store that type of information was not before the court. *Id.* Thus, the court defined only the term “memory means” and did not decide whether “for storing” presented an additional limitation.

Here, the structure of the “memory” and the “run-time executor” are defined according to their functions: e.g., storing data collection applications or executing data collection applications. Thus, the claim uses functional language that describes the structure of a “memory” and “run-time executor” beyond being merely “memory” and a “run-time executor.” *See, e.g., Acco Brands, Inc. v. Micro Security Devices, Inc.*, 346 F.3d 1075, 1078 (“The functional language is, of course, an additional limitation in the claim.”) (quoting *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1363 (Fed. Cir. 1999)). Typhoon’s argument attempts to omit any portion of a limitation after the preposition “for” from the claim language. If the claim scope extending to merely a capability “to store” or “to execute” was sought by the inventor, then the claim would have recited only “a memory” and “a run-time executor.”

Thus, Defendants are correct that, as an operational apparatus embodied as claimed, the “memory” and the “run-time executor” must perform the recited functions (including storing data collection applications and operating systems and executing those applications). The patentee defines the structure of “memory” and the “run-time executor” by reference to functional characteristics, which is proper. But, having done so, the patentee also imposed the requirement that the functional characteristics specified must be included within the claim limitation in the context of the operational apparatus; in this case “a computer” containing “a memory for storing . . .” and a “run-time executor for executing . . . .” *See, e.g.,* ‘362 Patent at 18:24-36.

Accordingly, “Memory [means] for storing any of a plurality of data collection applications

. . . an operating system and data . . .” is defined as “a memory that must perform the recited function (i.e. storing a plurality of data collection applications, an operating system and data/ at least one data collection application/ data collection application and various libraries/ functional libraries/ a data collection application and an operating system).” Similarly, the term “for executing” is defined as “the recited function must be performed (namely, executing the application and the libraries to facilitate data collection operations).”

### **“data collection application”**

Claims 1, 7, and 12-15 of the ‘057 patent and claims 1, 4, and 10-13 of the ‘362 patent contain the term “data collection application.” The parties agree that the term does not have a plain meaning. Typhoon defines the term as “a software application for receiving and storing data that utilizes libraries.” To arrive at this definition, Typhoon relies on several phrases describing the operation of a data collection application within the specification and then reduces those descriptions to their most general form. For example, Typhoon cherry-picks general references to a data collection application’s ability to collect and record data and converts them into the limitation’s defining characteristic. *See* ‘057 Patent at 2:64-67 (“For data collecting and recording, the memory of the portable computer stores a data collection application . . .”).

In fact, the patents do explain that data collection applications assist in collecting data. *See id.* However the description also explains that “data collection is facilitated by using displayed help fields for each question or subject, sequential and consequential libraries, and cross referencing of entered responses.” ‘362 Patent at 3:7-10. As will be more thoroughly explained, “libraries” are generally groups “of possible responses” to questions. *See id.* at 3:12-17. Along these same lines, the description of the preferred embodiment details how a data collection application is formatted

for “question and answer” data collection. *See, e.g., id.* at 12:10-14 (“The loop procedure’s main function is to go to each question on the data collection screen one by one, interact with the user to get the information, validate the information, and return to the beginning of the loop or exit.”).

Because the specification exclusively refers to the data collection application’s ability to collect data by question and answer, Defendants urge that the term be defined as “a computer program that collects responses to a predetermined series of questions.” Thus, the parties’ principal dispute is whether a “data collection application” broadly “collects and stores data” or is limited by the disclosed question and answer format.

The specification provides several indications that a data collection application is limited to its disclosed “question and answer” format. First and foremost, in a paragraph entitled “[w]hat is an application?” located in an illustrative appendix to the specification, the patent recites that “[t]he basics of designing applications can be summarized in the following single sentence: ‘The application is a series of multiple-choice questions.’” ‘057 Patent at 18:27-31. Additionally, several dependent claims contain references to “changing the flow of said data collection applications.” *See, e.g.,* ‘362 Patent at 17:21-21, 18:44-45. Defendants assert that “flow” has no antecedent basis in the claims, unless “flow” refers to a characteristic of a “data collection application.” Defendants are correct that use of the term “flow” in reference to applications is consistent with a data collection application having a flow of questions described in the specification. *See* ‘057 patent at 3:32-36 (explaining that consequential libraries contain “actions or executable instructions . . . *which change the flow of the application*”) (emphasis added).

Typhoon responds by arguing that a construction requiring a “question and answer” format would violate the canon of claim differentiation because claims 11 and 12 of the ‘057 patent contain

a limitation requiring “an application generator for generating said data collection applications and . . . said application generator further comprising means for cross referencing responses to said inquiries with possible responses from one of said libraries.” See ‘057 Patent at 32:18-22, 37-40. Typhoon asserts that this reference to “inquiries” and “responses,” only found in claims 11 and 12, precludes limiting a “data collection application” to collecting the responses to predetermined questions.

However, while a data collection application may collect responses to questions, the limitation in claims 11 and 12 specifically call for a “means for *cross referencing* responses” to questions. The doctrine of claim differentiation does not apply. See *Curtiss-Wright Flow Control Corp. v. Velan, Inc.*, 438 F.3d 1374, 1380-81 (Fed. Cir. 2006) (discussing the doctrine of claim differentiation as applied to independent claims). Further, the language in claims 11 and 12 further suggest that data collection applications collect responses to predetermined questions because (as claims 11 and 12 explain) the application generator provides a means to cross reference provided responses with the stored responses contained within the libraries. Thus, the language in claims 11 and 12 assume that there are responses that have been collected by a data collection application and stored predetermined questions.

Typhoon’s suggestion that the patent very generally describes a data collection application as “receiving and storing data” is incorrect. As discussed, the specification and the claims of the patent refer to a data collection application as a specific sort of data collection tool that gathers answers to a series of questions. Accordingly, “data collection application” is defined as “a computer program that collects responses to a predetermined series of questions.”

## **“application generator”**

Claims 1, 6-7, and 9-12 of the ‘057 patent and claims 1, 3-4, 6-8, and 10 of the ‘362 patent include the term “application generator.” Typhoon suggests the term means “a software tool used to develop and customize data collection applications and libraries,” while Defendants urge that the definition is “an interactive software development tool used in generating a data collection application by converting menu selections to code.”

The patents overwhelmingly explain, in various locations, the purpose and function of an application generator. The patents’ abstract explains that “[a]n application generator allows the user to develop data entry applications by combining features of sequential libraries, consequential libraries, help libraries, syntax libraries, and pictogram libraries into an integrated data entry application.” ‘362 Patent at [57] (“Abstract”); ‘057 Patent at [57] (“Abstract”). The description also references “FIG. 5 [as] show[ing] a block diagram of the computer-aided interactive process for application generation. The process is designed to provide a series of options which are selectable by the designer.” ‘362 Patent at 8:9-12; ‘057 Patent at 8:45-48.

Defendants argue that the definition of “application generator” should be limited to an “interactive program” containing only “menu selections” because the description of the preferred embodiment contains the above-quoted reference to “menu options” and an “interactive process.” However, the entirety of the description provides evidence that the claims are not so limited. The ‘057 patent provides an “appendix” for the specific purpose of explaining application generation. *See* ‘057 Patent at 17:23-26 (“To further clarify the application generator process, appended hereto and made part hereof is an illustrative application generation guide.”). As part of this “application generation guide” the appendix describes how to design questions (for the data collection

applications) and answers (for the libraries) noting that the user is not limited by particular formats or forms. *See* ‘057 Patent at 20:34-39 (“The first step in designing an application is comprised of drafting questions and defining the formats for their answers. What you must be aware of here is that we are using the term ‘question’ quite liberally. When we say ‘question’ we mean literally any kind of text . . .”).

The description, the claims, and the supporting appendix only restrict an “application generator” to what it creates, i.e. a data collection applications and libraries. Thus, Defendants’ construction restricting the application generator to turning “menu selection” to code is unsupported. Instead, as explained by the patent and viewed in the context of the extensive appendix on application generation, the “application generator” is a tool for creating questions (in the form of data collection applications) and answers (in the form of libraries).

On the other hand, Typhoon’s suggested definition requires that the “application generator” also “customize[s]” applications. The patents do not describe a difference between the creation of applications and libraries and their customization. Additionally, the ordinary meaning of “customize” is inherently subjective. *See* The American Heritage College Dictionary 341 (3d ed. 1997) (defining “customize” as “to make or alter to individual or personal specifications”). Finally, as the definition suggests, “creation” necessarily includes the ability to “customize.” Therefore, the addition of the phrase “and customize” in Typhoon’s proposed definition is inappropriate. *See Datamize*, 417 F.3d at 1350. Accordingly, “application generator” is defined as “a software tool used to develop data collection applications and libraries.”

### **“library”**

The term “library” is found in claims 1, 6-7, 9-15 of the ‘057 patent and claims 1, 3-4, 6-8,

and 10-13 of the '362 patent. Typhoon suggests that the term means “a collection of customizable content used by the data collection application.” Defendants urge the definition is “a collection of possible responses, messages, or images used by the data collection application.” The parties agree that a “library” is a collection of content that is used by the data collection application. Thus, the principal controversies surround whether the “content” is limited to “responses, messages, or images” and whether the content is “customizable.”

The patents' specification describes five types of libraries: sequential, consequential, help syntax, and pictogram libraries. See '362 Patent at [57] (“Abstract”); 3:7-9 (“[D]ata collection is facilitated by using displayed help fields for each question or subject, sequential and consequential libraries, and cross-referencing of entered responses.”); '057 Patent at 3:15-18 (same). “Sequential libraries are libraries of possible responses in text or pictogram form . . . .” '057 Patent at 3:20-21. Consequential libraries are similar to sequential libraries . . . .” *Id.* at 3:32. With respect to consequential libraries, the specification teaches that the user is able to “select[] from the *displayed possible responses* as described with respect to sequential libraries.” *Id.* at 3:37-38 (emphasis added). Thus, consequential and sequential “libraries” are described in the patent as “responses,” and the “responses” are, in turn, described as having the form of a “text or pictogram.”

Similarly, pictogram libraries are described as “stor[ing] graphical images of objects,” and syntax libraries are collections of “standard messages that are displayed on the screen to interact with the user.” *Id.* at 15:25-26, 34-35. Finally, the patent refers to “help libraries” with reference to a “help function” described as “*messages or text* relating to each one of the questions on the data collection screen.” '057 Patent at 14:49-51 (emphasis added). These libraries exist so that when a user initiates the help feature “text will pop up on a window and explain, for example, the nature of

[what] the answer should be.” *Id.* at 14:54-55.

Thus, Defendants are correct that the specification defines libraries specifically as either responses, messages, or images. Importantly, Typhoon concedes that the patents specifically describe libraries as “responses, messages, or images.” *See* Typhoon’s Opening Brief, Docket No. 340 at 22. Typhoon does not suggest, or point to any intrinsic or extrinsic evidence concerning what kind of “content” the term “libraries” would encompass besides the definitions specifically given in the specification and recited above.

Finally, the claims themselves use the word “content” to describe all outputs displayed on the screen of the disclosed devices. *See id.* at 31:19-22 (“an application generator for generating said data collection applications and for creating different functional libraries relating to said contents and formats displayed on said screen”). If content is the visible result of the interaction between data collection applications and libraries, then the definition of “libraries” must be something less broad: i.e., responses, messages, or images.

Typhoon also argues that libraries should be defined as “customizable.” For the same reasons discussed for the term “application generator,” the word “customizable” is inappropriate for describing “library.” The patents’ claims specify that a user can “create” libraries and introducing “customize” into the definition of “library” would only add ambiguity to the definition without clarifying anything about the scope of the term. Accordingly, “library” is defined as “a collection of possible responses, messages, or images used by the data collection application.”

### **“operating in conjunction with”**

The term “operating in conjunction with” appears in claims 1, 12, and 14 of the ‘057 patent and claims 1 and 10 of the ‘362 patent. The term is used in various contexts. For example, claim

1 of the '362 patent teaches “an application generator operating in conjunction with said operating system to generate said data collection application,” and claim 12 of the '057 patent teaches “a run-time utility operating in conjunction with said processor to execute said application.”

The ordinary definition of the word “operate” is “to perform a function.” The American Heritage College Dictionary 956 (3d ed. 1997). However, Typhoon urges that the term needs no definition because “in conjunction” merely describes a characteristic or feature, for example, that the run-time utility is designed to operate with the processor and need not actually operate for the claim limitation to be satisfied. Typhoon provides no support for its “plain and ordinary” construction and fails to explain how the word “operating” denotes a mere capability. Thus, Typhoon bears the burden of showing how the patentee intended “operating in conjunction” to have a specialized meaning. *N. Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1295 (Fed. Cir. 2000) (“The plain and ordinary meaning of claim language controls, unless that meaning renders the claim unclear or is overcome by a special definition that appears in the intrinsic record with reasonable clarity and precision.”) (citation omitted).

In accordance with the plain meaning of “operating,” Defendants suggest that “the claim language ‘operating in conjunction with’ requires that the run-time utility/executor/ or the application generator, in fact, be operating, and operating in conjunction with the processor/operating system. In other words, the phrase is not satisfied until the run-time utility/executor or application generator is actually operating.” Thus, the parties’ agree that the term requires that the run-time utility/executor or application generator operate with the processor/operating system, however, the parties disagree over whether the term requires those features to actually perform their functions (rather than a capability or feature).

With regard to the interaction between the run-time utility and the processor, the specification describes that “[w]hen the computer . . . is turned on, its operating system is loaded automatically in and the run-time process commences.” ‘057 Patent at 12:43-45. As such, the patent clearly indicates that the run-time utility only operates when the processor (in the computer) is turned on. Thus, the patent does not describe a capability to interact, but an actual ongoing interaction between the run-time utility and the processor. *See id.* at 12:42-13:59.

With regard to the interaction between the application generator and the operating system, claim 1 of the ‘057 patent and claim 10 of the ‘362 patent describe the interaction relating to “partition[ing] . . . memory means.” *See* ‘057 Patent at 31:30-35. Additionally, claim 1 of the ‘362 patent describes the interaction occurring in order to “generate said data collection application and to create different functional libraries.” ‘362 Patent at 17:1-5.

The patent describes partitioning as an operation actually performed by the application generator in order to separate data collection applications and associated libraries within memory. *See* ‘059 Patent at 7:46-48. Thus, the only situation described in the specification that can give any effect to the claim language is at the point in time when an application generator and processor are working together to partition memory. The patent also describes, in detail, how the application generator uses the processor to generate data collection applications and libraries. *See* ‘057 Patent at 8:44-12:40. It is clear from the detailed description that the application generator actually works with the processor to create data collection applications and libraries.

Had the patentee claimed an application generator “capable of working in conjunction with” or simply “an application generator” and “a processor,” then a device with the mere ability to partition, generate, or create could meet the claim language. However, as the claim limitation

specifically requires that an application generator work with an operating system to partition memory or generate applications and libraries, that language must be given effect.

Contrary to Typhoon's argument, there is no support in the intrinsic record that the claim limitation "operating in conjunction with" denotes a mere capability to operate. Thus, the term needs no construction, and the plain and ordinary meaning controls, i.e., that the run-time utility/ executor/ application generator, in fact, be operating, and operating in conjunction with the processor/ operating system. In other words, the phrase is not satisfied until the run-time utility/ executor or application generator is actually operating.

**"to partition said memory [means]"**

Claim 1 of the '057 patent and claim 10 of the '362 patent contain the term "to partition said memory [means]." Typhoon suggests that the term needs no construction and simply means "to divide a memory." Defendants advocate that the definition is "to divide a memory into multiple locations recognized by the operating system as separate sections of memory for storing data." The fundamental dispute between the parties is whether "partition" should be given its technical definition.

Since *Phillips*, claim terms are generally given their technical definition in lieu of a general dictionary definition. See *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 469 F.3d 1039, 1041 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1303); *Mangosoft v. Oracle Corp.*, 525 F.3d 1327, 1333 (Fed. Cir. 2008) (construing a claim term consistently with its technical definition). Within the field of computer science, "partition" has a particular and well recognized definition meaning: "a section of a hard disk physically divided from other sections during the formatting operation and treated by the operating system as if it were a separate disk." See Defendants' Brief, Ex. 16, Docket No. 355-19

(referencing Que's Computer User's Dictionary 344-345 (1990)).

Further, the specification explains that “the host system 202 stores an application and associating libraries in memory locations partitioned by the application generator.” Accordingly, this reference explains that the “data” (applications and libraries) are stored in memory locations (as opposed to physical locations) and that such memory locations were created by the application generator (the “operating system”). Therefore, besides the patented subject matter generally falling under the field of computer systems, the intrinsic evidence further supports use of the technical definition. Typhoon provides no evidence, either intrinsic or extrinsic, that supports the use of a broader definition outside the context of computer science. Accordingly, “to partition said memory [means]” means “to divide a memory into multiple locations recognized by the operating system as separate sections of memory for storing data.”

#### **“said possible responses”**

Claims 7, 8, 11, 13, and 15 of the ‘057 patent and claims 4-5, 8, 11, and 13 of the ‘362 patent contain the term “said possible responses.” The parties’ dispute surrounds whether there is ambiguity over what the term refers to. The term first appears in claim 7 of the ‘057 patent and claim 4 of the ‘362 patent. The preceding claim in both the patents (claim 6 of the ‘057 and claim 3 of the ‘362) is a dependant claim and contains a reference to “said application generator includes a sequential library of possible responses configured for display by the input/output device.” ‘057 Patent at 31:62-64; ‘362 Patent at 17:3-4.<sup>2</sup> Whenever the term “said possible responses” appears in the subsequent claims, Typhoon argues that the term refers to the “responses” both in the sequential library claims and in the claim where the term appears. For example, claim 7 of the ‘057 patent

---

<sup>2</sup> For ease of reference, these claims will be referred to as the “sequential library claims.”

claims “[t]he self contained, general purpose, portable, keyboardless computer of claim 6 wherein a second library created by said application generator includes a consequential library of one of actions and executable instructions associated with said possible responses for changing the flow of said data collection applications.” Typhoon argues that “said possible responses” in claim 7 refers to the possible responses in both claim 7 (the responses for consequential libraries) and claim 6 (the responses for sequential libraries). To this end, Typhoon asserts that the claim needs no construction because this result yields from the plain and ordinary meaning of the term.

In contrast, Defendants assert that the term refers only to its antecedent basis in the sequential library claim. Therefore, in the above example, “said possible responses” would refer only to the possible responses of the sequential libraries mentioned in claim 6. To this end, Defendants suggest the term means “the possible responses of the sequential library.”

In each of the claims including the term “said possible responses” (including claim 7 of the ‘057 patent referenced above) the claims do not mention, define, or refer to other sets of responses. In the very same manner, the specification refers to and describes other libraries (such as consequential libraries) with reference to the “responses” in the sequential libraries. *See id.* at 3:32-42 (“Consequential libraries are similar to sequential libraries except that associated with one or more of the possible responses stored in the memory are actions or executable instructions (e.g., branch, jump, etc.) also stored therein which change the flow of the application.”). Thus, the specification and the claim language support the conclusion that the only clear antecedent basis for “said possible responses” are the responses mentioned in the sequential library claims. As a result, Defendants’ construction is correct and “said possible responses” means “the possible responses of the sequential library.”

## **“for changing the flow”**

Claims 7, 13, and 15 of the ‘057 patent and claims 4, 11, and 13 of the ‘362 patent contain the term “*for changing the flow* of said data collection applications.” The parties point to the same portion of the specification to support their suggested definitions:

### 1.6 Logical Flow of Applications

The logical flow of your application is controlled by a parameter common to each answer field: the Go To parameter. This parameter determines the next question to be asked in the application. Each question is also assigned a Sequence Number used by the GoTo parameter. In the example of FIG. 1.1 above, question 1's GoTo parameter would be simply “Next Question.” Question 2's GoTo parameter, being the final question of this short application, would be “End Program.”

‘057 Patent at 19:64-20:6. The above quoted language describes how “flow” is controlled by a “parameter” that determines the “next question.” Typhoon suggests that the definition of “for changing the flow” is “for changing the logical order of inquiries.” However, as the above quoted language clearly demonstrates, the “logical order” of questions is only altered in response to the user’s answer to the previous inquiry. Further, the specification suggests a process where a change in “logical order” extends to the “next question.” Thus, Typhoon’s general definition including the term “logical order” is overly broad. The specification describes a specific question-by-question process whereby a change in answer to a current question may result in a different subsequent question. *See id.* at 19:51-54 (“Consequential libraries . . . hold lists of answers and can affect the flow of the application. That is, the next questions asked are dependant upon the previous answer selected.”) Therefore, Defendants’ proposed construction correctly identifies the scope of “flow.” Accordingly, “for changing the flow of said data collection application” is defined as “changing the next question presented from the data collection application depending on the response to the previous question.”

### **“means for cross-referencing”**

Claims 11 and 12 of the ‘057 patent and claim 8 of the ‘362 patent contain a limitation requiring the “application generator” to contain a “means for cross-referencing responses to said inquiries with possible responses from one of said libraries.” All parties agree that the term is a means-plus-function claim and is governed by 35 U.S.C. § 112, ¶ 6. The parties further agree that the disclosed function of the term is “cross-referencing responses to said inquiries with possible responses from one of said libraries.” However, Defendants argue that the term is indefinite because there is no corresponding structure disclosed in the patent’s specification. Typhoon contends that the term is definite and the corresponding structure is disclosed as “an algorithm that matches entered responses with a library of possible responses, and, if a match is encountered, displaying the fact of the match, otherwise alerting the user, or displaying information stored in memory fields associated with that library entry, and equivalents thereof.”

Typhoon supports its articulation of the term’s structure by referencing a portion of the specification describing the preferred embodiment of the invention:

#### 3. Cross-referencing

Cross-referencing imports that, for each answer field, the entered response can be related to a library to determine if the response in the answer field is existent in the library. In other words the answer information is cross-referenced against that specific library. If it is available in that library, then, corresponding to that library entry, an action is executed. For instance, the associated action can involve an overlay window that alerts the user of the fact of the match with the library entry, or displays the contents of an information field stored in association with that entry in the memory. The user can then avail himself or herself of that information to make a decision or for whatever other purpose. Thus, cross-referencing results in the typical situation with the display of information.

‘057 Patent at 14:57-15:4. Defendants claim that the above quoted language is merely an articulation of the result of the claimed function and not a structure.

When § 112, ¶ 6 is invoked and the claimed structure is a computer, a degree of specificity is required beyond merely disclosing a computer. *Aristocrat Techs. Austl. Pty Ltd. v. Int'l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). “Because general purpose computers can be programmed to perform very different tasks in very different ways, simply disclosing a computer as the structure designated to perform a particular function does not limit the scope of the claim to ‘the corresponding structure, material, or acts’ that perform the function, as required by section 112 paragraph 6.” *Id.* “Thus, in a means-plus-function claim ‘in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm.’” *Id.* (quoting *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). If a patentee fails to disclose a specific algorithmic structure, then the claim term is indefinite. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008).

The parties agree that a specific algorithmic structure is not disclosed in the patent. Regardless, Typhoon asserts that the above-quoted language is detailed enough to allow a practitioner skilled in the art to understand the algorithmic structure corresponding the “means for cross-referencing” term. However, when language in the specification “simply describes the function to be performed, not the algorithm by which it is performed,” the claim term does not escape indefiniteness. *Aristocrat Techs.*, 521 F.3d at 1334. This is true even when language in the specification is so specific that it may allow one skilled in the art to devise an algorithm with sufficient structure. *Id.* The above quoted language merely discloses the result achieved by a means for cross-referencing. Typhoon’s proposed structural language does not disclose any sort of computer algorithm. Rather, it uses more (and different) words to define the function. The patent

fails to disclose any algorithmic structure for the “means for cross-referencing” claim term. As a result, the claim is indefinite. Defendants’ motion for summary judgment on the issue of indefiniteness is granted with respect to claims 11 and 12 of the ‘057 patent and claim 8 of the ‘362 patent.

### **“run-time utility”**

Claims 12 and 14 of the ‘057 patent contain the term “run-time utility.” Typhoon suggests that the term means “a software tool to facilitate data collection operations.” Defendants urge that the definition is “a program specifically designed to execute and process compiled data collection application and libraries.”

Initially, Typhoon’s construction is overly broad in light of the claim language. Claim 12 requires “a run-time utility . . . to execute said [data collection] application.” Considering that the claim language already requires that a run time utility execute data collection applications, Typhoon’s construction merely replaces the words “software tool” for “run-time utility.” Such a construction is unhelpful, renders claim language superfluous, and unjustifiably broadens the scope of the claims by merely replacing a specific term with a more general one.

On the other hand, Defendants’ construction focuses on how the run-time utility operates in the preferred embodiments and fails to capture what a run-time utility is. *See* ‘057: Fig. 5, 6, 8:61-63, 18:17-18 (describing that the preferred embodiment features a run-time utility that operates on compiled applications created by an application generator). Defendants improperly focus on whether a run-time utility must interact with “compiled” data collection applications. Adding such a limitation does not assist in defining a run-time utility, but rather, imports a roundabout limitation on the nature of data collection applications. Such a limitation is clearly improper. Thus,

Defendants' proposed construction is also rejected.

As agreed by the parties and as indicated by the words "run-time," the utility is invoked during the execution of a program. *See* '057 Patent at 12:43-46 ("When the computer 10A-10N is turned on, its operating system is loaded automatically in and the run-time process commences."). Here, the utility aids in the execution of a data collection application. *Id.* at 12:41-43. The word "utility" designates not just a "software tool," as Typhoon describes, but a software program that manages the tasks involved in execution of the data collection application by the processor. *See id.* at Fig. 11, 12:41-13:59. As shown by the flow chart in Figure 11 of the '057 patent, the run-time process for managing a data collection application involves managing a number of specific tasks. Therefore, a "run-time utility" refers to "a software program invoked during execution of a data collection application to manage the various tasks involved in executing the data collection application."

#### **"data collection unit"**

Claim 14 of the '057 patent contains the term "data collection unit." The parties agree that the term has no established meaning within the art. Despite this, Typhoon advocates that the term means "a device for collecting data." Thus, Typhoon's argument is essentially that "unit" should be construed as "device" and that the patentee did not attach any specialized or restricted meaning to the term as a whole. Conversely, Defendants argue that the term means "a device that is designed to collect data for transfer to a central location." Typhoon responds by arguing that Defendants' definition is overly restrictive in requiring a "data collection unit" to "transfer to a central location."

The patentee essentially coined a phrase in using "data collection unit." The meaning given to it by the patentee is gleaned from the attributes of data collection described in the specification.

The patent describes that a data collection unit “can continuously and repetitively collect data.” ‘057 Patent at 7:56-57. Then, “the collected data is stored locally on the satellite computer.” *Id.* at 7:59-60. “[T]he data provided from the computer . . . is uploaded to the host computer.” *Id.* at 7:62-63. The patent also refers to the uploaded data as “transferred data.” *Id.* at 7:67. However, the fact that the data is transferred to a “host computer” in the specification is merely illustrative and has nothing to do with the operation of a “data collection unit.” By way of analogy, the patent describes that data being transferred to a host computer can be accomplished in a variety of ways, including by floppy disk, cable or satellite connection. *Id.* at 8:1-5. That recital, nor the recital that transferred data flows to a host computer, restricts a “data collection unit” to transferring data solely by those described methods or solely to the described recipient. Thus, the attributes essential to the patentee’s use of the term “data collection unit” are collection of data and transfer of data. Accordingly, “data collection unit” is defined as “a device to collect data for transfer.”

#### **“run-time executor”**

Claims 1 and 12 of the ‘362 patent contains the term “run-time executor.” The parties agree that the term has no ordinary meaning and that it is not specifically described in the patent. Defendants claim, based on these two facts, that the term is indefinite. Typhoon argues that the term was used, and indeed meant to be used, interchangeably with the term “run-time utility.”

As noted above, the ‘362 patent is a continuation of the ‘057 patent, which in turn claims priority to U.S. Application No. 07/271,237 filed on November 14, 1988. The term “run-time executor” was first used in new claims added to the ‘057 patent application on January 28, 1994. *See* Amendment dated January 28, 1994, Defendants’ Motion for Summary Judgment Ex. 3, Docket No. 354-4 at 6-8, 10. After those claims were rejected by the patent examiner for lack of a written

description, the applicant replaced the term “run-time executor” with the term “run-time utility” described in the specification. *See* Office Action dated March 17, 1994, Defendants’ Motion for Summary Judgment Ex. 4, Docket No. 354-5 at 3; Amendment dated May 31, 1994, Defendants’ Motion for Summary Judgment Ex. 6, Docket No. 354-7 at 6. The term “run-time executor” was reintroduced in the continuation application which led to the ‘362 patent. *See* Preliminary Amendment dated October 4, 1994, Defendants’ Motion for Summary Judgment Ex. 8, Docket No. 354-9 at 1, 13-15, and 17-18. The claims in the continuation application were not rejected on the basis of lack of a written description. Thus, the term “run-time utility” is used in the ‘057 patent and the term “run-time executor” is used in the ‘362 patent.

This history manifests a clear intention by the patentee that the terms “run-time utility” and “run-time executor” are synonymous and interchangeable. *C.f. Telecom Ltd. v. Samsung Elecs. Co.*, 215 F.3d 1281, 1294 (Fed. Cir. 2000) (holding that patentee must use “reasonable clarity and deliberateness” in prosecution history in order for a court to limit the scope of claim terms based on such history). In addition, by the time the continuation application leading to the ‘362 patent was filed, the PTO also agreed that the patentee used the terms interchangeably. At the time of the original application there was no evidence that “utility” and “executor” had similar definitions. However, given those terms’ subsequent history, Defendants’ argument that “run-time executor” is insolubly ambiguous has no support. The patent history decisively yields the conclusion that “run-time executor” be given the same definition as “run-time utility.” Therefore, Defendants’ motion for summary judgment is denied with respect to the term “run-time executor” and the term is defined as “a software program invoked during execution of a data collection application to manage the various tasks involved in executing the data collection application.”

## CONCLUSION

For the foregoing reasons, the Court interprets the claim language in this case in the manner set forth above. Furthermore, Defendants' motion for summary judgment on the issue of indefiniteness is **GRANTED** in part and **DENIED** in part. For ease of reference, the disputed claims are set forth in Appendix A and the Court's claim interpretations are set forth in Appendix B.

So **ORDERED** and **SIGNED** this 23rd day of July, 2009.

A handwritten signature in black ink, appearing to read 'Leonard Davis', written over a horizontal line.

**LEONARD DAVIS**  
**UNITED STATES DISTRICT JUDGE**

## APPENDIX A

*U.S. Patent No. 5,379,057*

1. A **self-contained, general-purpose, portable, keyboardless** computer comprising:
  - A. a combined **input/output device** including a display for displaying outputs on a **touch-sensitive screen**, said screen superposed over said display and configured for manual entry of responses;
  - B. **memory means for storing** any of a plurality of **data collection applications**, an operating system and data, said **data collection applications** determining contents and formats of said outputs displayed on said screen;
  - C. a central processing unit connected to said memory means and said **input/output device for executing** said **data collection applications** stored in said memory means; and
  - D. an **application generator** for generating said **data collection applications** and for creating different functional **libraries** relating to said contents and said formats displayed on said screen, said **application generator operating in conjunction with** said operating system **to partition said memory means** for storing said **data collection applications** and **libraries**.
2. The **self-contained, general-purpose, portable, keyboardless** computer of claim 1 further comprising **means for powering** said **input/output device** and said processing unit.
6. The **self-contained, general-purpose, portable, keyboardless** computer of claim 1 wherein a first **library** created by said **application generator** includes a **sequential library** of possible responses configured for display on said screen in selected ones of said formats.
7. The **self-contained, general-purpose, portable, keyboardless** computer of claim 6 wherein a second **library** created by said **application generator** includes a **consequential library** of one of actions and executable instructions associated with said **possible responses for changing the flow** of said **data collection applications**.
8. The **self-contained, general-purpose, portable, keyboardless** computer of claim 7 wherein said **possible responses** are one of text and pictograms.
9. The **self-contained, general-purpose, portable, keyboardless** computer of claim 8 wherein said pictograms comprise graphical images of objects and wherein a third **library** created by said **application generator** includes a **pictogram library** of said pictograms.
10. The **self-contained, general-purpose, portable, keyboardless** computer of claim 9 wherein a fourth **library** created by said **application generator** includes a **syntax library** of predefined message outputs displayed on said screen, and whereby changes to said predefined message outputs are effected by accessing said **syntax library** and manually entering desired message outputs.
11. The **self-contained, general-purpose, portable, keyboardless** computer of claim 10 wherein said **application generator** further includes **means for cross-referencing** said responses with one of said **libraries** of said **possible responses**.
12. A **portable, keyboardless**, computer comprising:
  - an **input/output device** for displaying inquiries on a **touch-sensitive screen**, said screen configured for entry of responses to said inquiries;
  - a **memory for storing** at least one **data collection application** configured to determine contents and formats of said inquiries displayed on said screen;
  - a processor coupled to said memory and said **input/output device for executing** said **data collection application**; and
  - an **application generator** for generating said **data collection application** and for creating

different functional **libraries** relating to said contents and said formats displayed on said screen, said **application generator** further comprising **means for cross-referencing** responses to said inquiries with possible responses from one of said **libraries**; and  
a **run-time utility operating in conjunction with** said processor to execute said application and said **libraries** to facilitate data collection operations.

13. The computer of claim 12 wherein said different functional **libraries** include:  
a **sequential library** of said **possible responses** configured for display on said screen in selected ones of said formats;  
a **consequential library** of one of actions and executable instructions associated with said **possible responses for changing the flow** of said **data collection applications**; and  
a **pictogram library** for storing graphical images of objects.

14. A **portable, keyboardless, data collection unit** comprising:  
an **input/output device** for displaying and entering information on a **touch-sensitive screen**;  
a **memory for storing** a data collection application and various functional **libraries** relating to contents and formats of said information displayed on said screen;  
a processor coupled to said memory and said **input/output device for executing** said **data collection application**; and  
a **run-time utility operating in conjunction with** said processor to execute said application and said **libraries** to facilitate data collection operations.

15. The unit of claim 14 wherein said **libraries** include:  
a **sequential library** of possible responses configured for display on said screen in selected ones of said formats;  
a **consequential library** of one of actions and executable instructions associated with said **possible responses for changing the flow** of said **data collection application**; and  
a **pictogram library** of pictograms.

*U.S. Patent No. 5,675,362*

1. A **portable, keyboardless** computer including an **input/output device** for entering and displaying information, said computer comprising:  
A. a **memory for storing a data collection application** and an operating system, said **data collection application** determining contents and formats of the information displayed by the **input/output device**;  
B. a processing unit connected to said memory **for executing** said data collection application;  
C. an **application generator operating in conjunction with** said operating system to generate said **data collection application** and to create different functional **libraries** relating to said contents and said formats displayed by the **input/output device**; and  
D. a **run-time executor operating in conjunction with** said processing unit to execute said application and said **libraries** to facilitate data collection operations.

2. The **portable, keyboardless** computer of claim 1 further comprising **means for powering** said memory and processing unit.

3. The **portable, keyboardless** computer of claim 2 wherein a first **library** created by said **application generator** includes a **sequential library** of possible responses configured for display by the **input/output device** in selected ones of said formats.

4. The **portable, keyboardless** computer of claim 3 wherein a second **library** created by said **application generator** includes a **consequential library** of one of actions and executable instructions associated with said

**possible responses for changing the flow of said data collection application.**

5. The **portable, keyboardless** computer of claim 4 wherein **said possible responses** are one of text and pictograms.

6. The **portable, keyboardless** computer of claim 5 wherein said pictograms comprise graphical images of objects and wherein a third **library** created by said **application generator** includes a **pictogram library** of said pictograms.

7. The **portable, keyboardless** computer of claim 6 wherein a fourth **library** created by said **application generator** includes a **syntax library** for changing the syntax of the information displayed by **the input/output device**.

8. The **portable, keyboardless** computer of claim 7 wherein said **application generator** further includes **means for cross-referencing** said responses with one of said **libraries** of **said possible responses**.

10. A **portable, keyboardless** computer including **an input/output device** for entering and displaying information, said computer comprising:

**a memory for storing** at least one **data collection application** configured to determine the contents and formats of the information displayed by the **input/output device**;  
**a processor** coupled to said memory **for executing** said **data collection application**; and  
**an application generator** for generating said **data collection application** for generating different functional **libraries** relating to said contents and said formats displayed by **the input/output device** said **application generator operating in conjunction with** said processor **to partition said memory** for storing said **data collection application** and **libraries**.

11. The computer of claim 10 wherein said **libraries** include:

**a sequential library** of possible responses configured for display by the **input/output device** in selected ones of said formats;  
**a consequential library** of one of actions and executable instructions associated with **said possible responses for changing the flow** of said **data collection application**; and  
**a syntax library** for changing the syntax of the information displayed by **the input/output device**.

12. A **portable, keyboardless** computer including **an input/output device** for entering and displaying information, said computer comprising:

**a memory for storing** a data collection application and various **libraries** relating to contents and formats of the information displayed by **the input/output device**;  
**a processor** coupled to said memory and **the input/output device** **for executing** said **data collection application**; and  
**a run-time executor for executing** said application and said **libraries** to facilitate data collection operations.

13. The unit of claim 12 wherein said **libraries** include:

**a sequential library** of possible responses configured for display by **the input/output device** in selected ones of said formats;  
**a consequential library** of one of actions and executable instructions associated with **said possible responses for changing the flow** of said **data collection application**; and  
**a syntax library** for changing the syntax of the information displayed by **the input/output device**.

## APPENDIX B

U.S. Patent Nos. 5,675,362 & 5,379,057	
Disputed Claim Term	Court's Construction
self-contained '057 Patent claims 1-2, 6-11	[AGREED] - Includes in a single compact housing all components necessary for computing — a central processing unit, a memory, an input/output device, and a battery pack for power
general-purpose '057 Patent claims 1-2, 6-11	No Construction Necessary
portable '057 Patent claims 1-2, 6-12, 14 '362 Patent claims 1-8, 10, 12	Physically configured to be easily carried by an individual
keyboardless '057 Patent claims 1-2, 6-12, 14 '362 Patent claims 1-8, 10, 12	Without a mechanically integrated keyboard
input/output device '057 Patent claims 1-2, 12, 14 '362 Patent claims 1, 3, 7, 10-13	[AGREED] - A device that includes a touch-sensitive screen, which recognizes an input and displays an output.
touch-sensitive screen '057 Patent claims 1, 12, 14	A screen which is responsive to touch.
memory [means] for storing '057 Patent claims 1, 12, 14 '362 Patent claims 1, 10, 12	A memory that must perform the recited function (i.e., storing a plurality of data collection applications, an operating system and data/ at least one data collection application/ data collection application and various libraries / functional libraries/ a data collection application and an operating system).
data collection application '057 Patent claims 1, 7, 12-15 '362 Patent claims 1, 4, 10-13	A computer program that collects responses to a predetermined series of questions.

<p>for executing</p> <p>'057 Patent claims 1, 12, 14</p> <p>'362 Patent claims 1, 10, 12</p>	<p>The recited function must be performed (namely, executing the application and the libraries to facilitate data collection operations).</p>
<p>application generator</p> <p>'057 Patent claims 1, 6-7, 9-12</p> <p>'362 Patent claims 1, 3-4, 6-8, 10</p>	<p>A software tool used to develop data collection applications and libraries.</p>
<p>library</p> <p>'057 Patent claims 1, 6-7, 9-15</p> <p>'362 Patent claims 1, 3-4, 6-8, 10-13</p>	<p>A collection of possible responses, messages, or images used by the data collection application.</p>
<p>operating in conjunction with</p> <p>'057 Patent claims 1, 12, 14</p> <p>'362 Patent claims 1, 10</p>	<p>No Construction Necessary.</p>
<p>to partition said memory [means]</p> <p>'057 Patent claims 1</p> <p>'362 Patent claims 10</p>	<p>To divide a memory into multiple locations recognized by the operating system as separate sections of memory for storing data.</p>
<p>means for powering</p> <p>'057 Patent claims 2</p> <p>'362 Patent claims 2</p>	<p>[AGREED] - Function: Powering [said] memory, [input/output device,] and processing unit.</p> <p>Structure: A power supply, and equivalents thereof.</p>
<p>sequential library</p> <p>'057 Patent claims 6, 13, 15</p> <p>'362 Patent claims 3, 11, 13</p>	<p>[AGREED] - A library of possible responses in text or pictogram form stored in memory and fetched with the associated subject or question for display on the device that does not affect the flow of the application.</p>
<p>consequential library</p> <p>'057 Patent claims 7, 13, 15</p> <p>'362 Patent claims 4, 11, 13</p>	<p>[AGREED] - Consequential libraries are similar to sequential libraries except that associated with one or more of the possible responses stored in the memory are actions or executable instructions also stored therein which change the flow of the application.</p>
<p>said possible responses</p> <p>'057 Patent claims 7, 8, 11, 13, 15</p> <p>'362 Patent claims 4-5, 8, 11, 13</p>	<p>the possible responses of the sequential library.</p>

<p>for changing the flow</p> <p>'057 Patent claims 7, 13, 15</p> <p>'362 Patent claims 4, 11, 13</p>	<p>changing the next question presented from the data collection application depending on the response to the previous question.</p>
<p>pictogram library</p> <p>'057 Patent claims 9, 13, 15</p> <p>'362 Patent claims 6</p>	<p>[AGREED] - A library used to store graphical images of objects.</p>
<p>syntax library</p> <p>'057 Patent claims 10</p> <p>'362 Patent claims 7, 11, 13</p>	<p>[AGREED] - A library of standard messages that are displayed on the screen to interact with the user.</p>
<p>means for cross-referencing</p> <p>'057 Patent claims 11-12</p> <p>'362 Patent claims 8</p>	<p>Indefinite</p>
<p>run-time utility</p> <p>'057 Patent claims 12, 14</p>	<p>A software program invoked during execution of a data collection application to manage the various tasks involved in executing the data collection application.</p>
<p>data collection unit</p> <p>'057 Patent claims 14</p>	<p>A device to collect data for transfer.</p>
<p>run-time executor</p> <p>'362 Patent claims 1, 12</p>	<p>A software program invoked during execution of a data collection application to manage the various tasks involved in executing the data collection application.</p>