United States District Court,
N.D. California.

Andrew PICKHOLTZ,
Plaintiff.
v.
RAINBOW TECHNOLOGIES, INC., et al,
Defendants.

No. C 98-2661 CRB

April 28, 2000.

Andrew Pickholtz, pro se, San Francisco, CA, Mark R. Clements, Mark F. James, Brent O. Hatch, Kevin W. Bates, Hatch, James & Dodge P.C., Salt Lake City, UT, Vincent M. DeLuca, Rothwell, Figg, Ernst & Manbeck, P.C., Washington, DC, for Plaintiff/Counter-Defendant.

Kevin W. Bates, Hatch, James & Dodge P.C., Salt Lake City, UT, Plaintiff.

Thomas L. Blasdell, Foley & Lardner, Los Angeles, CA, for Defendants/Counter-Claimants.

MEMORANDUM AND ORDER

BREYER**, J.**

This is a lawsuit for infringement of United States Patent No. 4,593,353 (the '353) issued on June 3, 1986. The '353 describes an apparatus for protecting against the unauthorized use of computer software. Now before the Court are the parties' claim construction briefs and supporting documents.

BACKGROUND

The '353 includes two claims. Claim 1 provides in its entirety:

1. A software protection apparatus using first and second authorization codes and a pseudorandom number, said software protection apparatus for use with a computer, comprising:

an external memory device having computer software and a first authorization code and a second authorization code at selected data locations, wherein said second authorization code is part of a pseudorandom sequence;

means for reading said external memory device, said means located in the computer;

pseudorandom number generator device located in the computer and coupled to said reading means, for

generating a pseudorandom number in response to said reading means reading said first authorization code from said external memory device, said first authorization code being read prior to execution of said computer software, said pseudorandom number generator device including a sealed casing, thereby preventing identification of the pseudorandom number generator algorithm;

processing means located in the computer and coupled to said reading means and said pseudorandom number generator device, for comparing the pseudorandom number generated by said pseudorandom number generator device with the second authorization code read from selected data locations in said external memory device, said processing means generating an enable signal in response to a positive comparison of the pseudorandom number with the second authorization code for enabling execution of the computer software stored in said external memory device.

Claim 2 describes in its entirety: "The software protection apparatus in claim 1 wherein said external memory device includes a floppy disc."

The parties dispute the construction of eight terms and phrases: (1) computer, (2) computer software, (3) external memory device, (4) located in the computer, (5) pseudorandom number generator device, (6) pseudorandom sequence, (7) means for reading, and (8) processing means.

DISCUSSION

I. LEGAL STANDARD

Patent infringement analysis involves two steps: the proper construction of the asserted claim and a determination as to whether the accused method or product infringes the asserted claim as properly construed. *See* Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). Interpretation and construction of patent claims is a matter of law for determination exclusively by the court. *See* id. at 979.

Extrinsic evidence, that is all evidence external to the patent and prosecution history such as expert and inventor testimony, dictionary definitions and learned treatises, may be admitted in the court's discretion "for background and education on the technology implicated by the presented claim and construction issues." Key Pharmaceuticals v. Hercon Laboratories Corp., 161 F.3d 709 (Fed.Cir.1998). However, "[i]n *interpreting an asserted claim,* the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996) (emphasis added). In examining the intrinsic evidence, the court should first look at the words of the claims themselves to define the scope of the patented invention. *See id*. While "words in a claim are generally given their ordinary and customary meaning," a patentee may alter the meaning of any words as long as the special definition is clearly stated in the patent specification or file history." *Id*.

Second, the court should always review the patent specification "to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning." *Id*. The specification is a written description of the invention which is designed to be clear and complete enough so that a person of ordinary skill in the art could make and use the invention. Drawings included in the patent application have the same impact on and effect on claim language as other portions of the specifications. *See* Autogiro Co. of America v. United States, 181 Ct.Cl. 55, 384 F.2d 391, 398 (Ct.Cl.1967). "The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." Vitronics, 90 F.3d at

1582. The Federal Circuit teaches that, "the specification is always highly relevant to the claim construction analysis. Usually it is dispositive; it is the single best guide to the meaning of a disputed term." *Id*.

The third type of intrinsic evidence that the Court may consider is the prosecution history of the patent, if it is in evidence. Vitronics, 90 F.3d at 1582. The prosecution history, also known as the "file wrapper," contains the entire record of the prosecution of the patent claim before the patent office, including any representations about the scope of the claim made by the applicant.

In most cases, analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed term. "In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper." Vitronics, 90 F.3d at 1583. The rationale behind this type of claim construction is clear:

The claims, specification, and file history constitute the public record of the patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention.

Vitronics, 90 F.3d at 1583 (citing Markman, 52 F.3d at 978-79). If extrinsic evidence was looked to in the first instance, the right and ability of a competitor to read and construe the claim from the public record and then design around the invention would be meaningless. For these reasons, "[o]nly if there [is] still some genuine ambiguity in the claims, after consideration of all available intrinsic evidence, should the trial court[ ] resort[ ] to extrinsic evidence." Vitronics, 90 F.3d at 1584; *see also* Key Pharmaceuticals, 161 F.3d at 716 (extrinsic evidence on the interpretation of a claim is appropriate if the intrinsic evidence "does not answer the question").

In fact, in those cases in which intrinsic evidence unambiguously describes the scope of the patent and defines the claim language, it is error to rely on extrinsic evidence such as expert testimony, inventor testimony, dictionaries, technical treatises or articles. *See* Bell & Howard Document Mgmt. Co. Products v. Altek Systems, 132 F.3d 701, 705-6 (Fed.Cir.1997); *see also* Key Pharmaceuticals, 161 F.3d at 717 ("[w]hat is disapproved of is an attempt to use extrinsic evidence to arrive at a claim construction that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent"). However, "under *Vitronics,* it is entirely appropriate, perhaps even preferable, for a court to consult trustworthy extrinsic evidence to ensure that the claim construction it is tending to from the patent file is not inconsistent with clearly expressed, plainly apposite, and widely held understandings in the pertinent technical field." Pitney Bowes, Inc. v. Hewlett Packard Co., 182 F.3d 1298, 1307 (Fed.Cir.1999).

II. CLAIM CONSTRUCTION

A. "Computer"

Claim 1 repeatedly uses the term "computer:" (1) col. 6, l. 4-5 ("for use with a computer"), (2) col. 6, l. 12 ("located in the computer"), (3) col. 6, l. 13-14 ("located in the computer"), and (4) col. 6, l. 23 ("located in the computer").

1. The disputed constructions

Plaintiff urges the Court to construe "computer" to mean "one or more processing units and the memory, *peripherals and other devices connected electronically to and communicating with the processing units*." (Emphasis added).

Defendant proposes that "computer" be defined as "[t]he CPU and main memory on the CPU's circuit board, which, taken together, form a part of a dedicated microprocessor system capable of executing instructions on data, *and which exclude connected peripheral devices*." (Emphasis added).

The primary distinction between the two definitions is that plaintiff interprets "computer" to include devices electronically connected to the processor, such as printers, servers, keyboards, and monitors, while defendant's definition excludes such "peripherals."

2. Analysis

"Computer," as used in claim 1, does not include peripherals.

First, defendant's construction is consistent with the specification. Figure 1 in the specification includes a CPU (central processing unit) and main memory (which together constitute defendant's definition of "computer") as well as a disc drive (no. 18 on Fig. 1). The entire device in Figure 1 is described as a "computer *system*." Col. 2, l. 66 (emphasis added); *see also* Col. 3, l. 4-5 (the CPU and main memory are "preferably components of a computer *system*") (emphasis added); Col. 3, l. 10-11 ("Operation of such a *system* is described ...") (emphasis added). The claim, however, consistently refers to a "computer" rather than a computer "system." Thus, the plain language of the patent suggests that a "computer" is different from a "computer system."

Second, the claim also repeatedly uses the term "located in the computer," for example, the pseudorandom number ("PRN") generator device is "located in the computer." If "computer" is interpreted as broadly as plaintiff urges, "located in the computer" is unnecessary; the PRN generator device must be located in the computer, that is, it has to be connected electronically to the controller and main memory. Thus, computer as used in claim 1 cannot simply mean connected electronically to the controller and main memory.

Third, Figure 1 shows the PRN generator "located in the computer" as defendant defines the term, that is, as part of the microprocessor system.

In sum, the intrinsic evidence unambiguously demonstrates that "computer" as used in claim 1 of the '353 refers to the microprocessing system and not the microprocessing system and everything electronically connected to it, including printers, disk drives and similar devices. Since the intrinsic evidence, that is the ordinary meaning of the term as used in the patent, is unambiguous and "answers the question," the Court need not consider plaintiff's extrinsic evidence.

Plaintiff's extrinsic evidence, in any event, is ambiguous, unpersuasive or supports defendant's definition of computer. For example, plaintiff identifies a patent examiner's report dated May 1, 1991 rejecting one of defendant's own patent applications as evidence of the meaning of "computer." The examiner's report, however, confirms that "computer" in the context of the '353 is not as broad as plaintiff contends. The examiner describes the '353 as

permanently establishing a first key in a hardware device (external memory 18 of Figure 1), providing and

storing a second key in a hardware device ..., connecting the hardware device having the first key and the second key stored therein *into a computer* ... for establishing a communications path *between the hardware device and the computer*.

May 1, 1991 Report at 3 (Exhibit 21 to Pickholtz Decl.) (emphasis added). Thus, the examiner distinguished between the hardware device (a peripheral) and a computer. One could not connect external memory into a computer if the external memory *is* the computer. Similarly, one cannot establish a communications path between external memory and a computer if the external memory *is* the computer; that would be establishing such a path between the computer and itself. Thus, this extrinsic evidence confirms the Court's construction of "computer." *See also id*. (stating that a person of ordinary skill in the art would have been motivated to use conventional structure for "connecting a peripheral component such as external memory *to a computer*") (emphasis added).

Plaintiff also contends that because the patent refers to a book, "Microprocessors and Microcomputers," col. 3, l. 12 ("Operation of such a system is described in detail in a number of available references ..."), the definition of digital computer in the book is intrinsic evidence supporting plaintiff's broad construction of "computer." Plaintiff's argument fails.

First, the definition in the book is inadmissible extrinsic evidence which contradicts the ordinary and unambiguous meaning of "computer" as gleaned from the language of the patent. *See* Key Pharmaceuticals, 161 F.3d at 717. Plaintiff cites no authority for the proposition that because a patent specification states that the operation of some device is described in some book, the contents of the book convert from extrinsic to intrinsic evidence.

Second, the reference to the book in the '353 actually states that the operation of a computer *system* is described in detail in the book. Thus, the patent is referring the reader to the book for a definition of a computer system (as is described in Fig. 1 of the '353), not the definition of "computer" as used in Claim 1.

B. "Computer Software"

Claim 1 uses the phrase "computer software" as follows: (1) col. 6, l. 6 ("an external memory device having computer software and a first authorization code and a second authorization code"), (2) col. 6, l. 17-19 ("said first authorization code being read prior to execution of said computer software"), and (3) col. 6, l. 32-24 ("with the second authorization code for enabling execution of the computer software stored in said external memory device").

1. The disputed definitions

Plaintiff interprets "computer software" to mean "one or more instructions for execution on a computer, and may include associated data."

Defendant construes "computer software" to mean "[a] set of instructions for execution on a computer and a header which identifies the first program instruction, and may include associated data."

The parties' primary dispute is whether the "computer software" can consist of a single instruction, such as "halt," or whether it must include a "set of instructions." Defendant also contends that the software must contain a "header" which identifies the first program instruction in the "set of instructions."

2. Analysis

Defendant's interpretation of "computer software," with respect to the requirement of a "set" of instructions, is more reasonable in the context of the '353. The "computer software" referred to in Claim 1 is computer software in an "external memory device." While "software" in the abstract might consist of only one instruction, the Court's obligation is to interpret terms in the claims of the patent *as they are used in the patent,* and not in the abstract. The expressed purpose of the '353 is to prevent the unauthorized use of computer software, that is, software that would require protection. As plaintiff conceded at the claim construction hearing, there is little practical value to protecting single instruction software. One reading Claim 1 of the '353 would have understood that the patent refers to software that might require protection, that is, software that consists of more than a single instruction.

Moreover, plaintiff's definition of "computer software" is at odds with the parties' *agreed to* definition of "execution of software." The parties agreed that "execution of computer software" means "to perform, run or carry out the *instructions* in the computer software." Exhibit 2, Pickholtz Decl. (emphasis added). The definition does not refer to one or more instructions, but rather to instructions plural; it assumes that the "computer software" has more than one instruction.

The Court declines to adopt defendant's interpretation of "computer software" as requiring a "header" to identify the first instruction. Nothing in the intrinsic evidence supports defendant's construction and, in fact, it has not identified anything in the extrinsic evidence either. Instead, defendant simply states, without citation, that a header is required. Such a bald statement is insufficient to support the construction urged by defendant.

C. "External Memory Device"

Claim 1 of the '353 uses the phrase "external memory device." For example, it discloses an apparatus comprising: "an external memory device having computer software," col. 6, l. 6, and "means for reading said external memory device, said reading means located in the computer." *Id.,* 1. 12.

1. Disputed Definitions

Plaintiff defines "external memory device" as "computer memory other than the main, relatively fast, memory of the computer which is generally erased when the power is removed, and includes magnetic disks, tapes and CD-ROMS."

Defendant defines "external memory device" as "[a] disc (or other transportable recording medium) on which an executable software program and first and second authorization codes are stored ."

2. Analysis

Plaintiff's proposed definition ignores the word "external." He contends that "external" simply means memory which is generally erased when the power is removed and claims further that his definition is consistent with the Rosenberg Dictionary definition of external storage: "storage that is accessible by a computer only through input-output channels." The Rosenberg definition makes clear, however, that the storage, that is, the external memory device, is something separate from the computer (as the Court has defined it above) since it cannot be "accessible by the computer" if it is part of the computer. At the claim construction hearing the defendant stated that it agreed with the Rosenberg definition, provided "computer"

is interpreted as defendant has urged. Since the Court has concluded that the intrinsic evidence compels defendant's construction of "computer," the Court will adopt the Rosenberg Dictionary definition of external memory, a definition proffered by plaintiff.

Plaintiff's extrinsic evidence is not inconsistent with external memory being defined as memory that is connected to, but not part of, the computer. For example, the Computing Course Materials identified by plaintiff describe "main memory" as "the working memory of the CPU, with fast access and limited numbers of bytes being transferred," and "external memory" as the "long term storage of information." The definition thus distinguishes between the memory of the computer (as the Court has defined it) and memory outside the computer.

The Court is not construing "external memory" to require that the memory be housed in a different casing from the microprocessor system. Rather, external memory is memory that is connected to the computer (as "computer" is used in claim 1), that is, it is external to the computer, not external to the casing in which the computer is housed. Thus a disk drive or CD ROM which is "housed" in the same casing as the computer would still be external memory under the Court's interpretation since it is not part of the computer, but rather is accessible to the computer.

D. "Located In The Computer"

Claim 1 uses the phrase "located in the computer" as follows: (1) col. 6, l. 12 ("reading means located in the computer"), (2) col. 6, l. 13-14 ("pseudorandom number generator device located in the computer"), and (3) col. 6, l. 2-24 ("processing means located in the computer").

1. The disputed definitions

Plaintiff contends the phrase means "the computer's processing units and the memory, peripherals or other devices which are connected electronically to and communicate with the processing units." Defendant's proposed definition is consistent with its more narrow definition of "computer."

The dispute here is the same as the parties' dispute with respect to the meaning of "computer."

2. *Analysis*

As the Court has construed "computer" to mean the CPU and main memory on the CPU's circuit board, which taken together form a part of a dedicated microprocessor system," "located in the computer" means "located in the CPU or main memory or on the CPU circuit board."

E. "Pseudorandom Number Generator Device"

The parties agree that a pseudorandom number is "a number having a seemingly random occurrence but which in fact was specifically selected or generated." Claim 1 uses the phrase "pseudorandom number generator device" as follows: (1) col. 6, l. 13-14 ("pseudorandom number generator device located in the computer"), (2) col. 6, l. 19-20 ("said pseudorandom number generator device including a sealed casing"), and (3) col. 6, l. 23-25 ("coupled to said reading means and said pseudorandom number generator device").

1. Disputed definitions

Plaintiff defines the generator as "hardware, software or a combination thereof, which provides one or more pseudorandom numbers as an output." Defendant defines the generator as "hardware that generates, in a deterministic fashion, a sequence of numbers that appear to be random."

The parties' dispute is whether the generator device consists of hardware only, software only, or a combination thereof.

2. Analysis

Claim 1 refers to a pseudorandom number generator *device*. The use of the word "device" implies the use of hardware, rather than software. For example, the '353 repeatedly uses the phrase "external memory *device*." "Device," as used in this phrase, refers to hardware, such a disk drive or CD ROM and supports an interpretation of "pseudorandom number generator device" as also referring to hardware.

Moreover, the phrase "pseudorandom number generator device including a sealed casing" indicates that hardware must be involved. At the claim construction hearing plaintiff conceded that the sealed casing would cover the hardware, although he contended that software could also be included. His concession, however, demonstrates that his proposed definition-which would allow the pseudorandom number generator device to consist of only software-is contrary to what is claimed.

Further, the specification identifies the "pseudorandom number generator" as hardware. In Fig. 3, the '353 identifies a generator that comprises a "shift register." Col. 4, l. 4-10.

Finally, the construction of "pseudorandom number generator device" as excluding software is consistent with the prosecution history. The Patent Examiner, in an action dated July 27, 1984, specifically stated that plaintiff "has claimed and disclosed a *hardware* random number generator 22 whereas [the prior art] discloses the *software* generation of random numbers." (Emphasis added.) There is nothing in the subsequent prosecution history that suggests that plaintiff objected to the characterization of his invention as claiming a hardware PRN generator. Rather, in his reply to the Patent Examiner, plaintiff specifically distinguished his invention from the prior art by stating that the prior art "does not have the pseudorandom number generator device including a sealed casing." Plaintiff stated further that his PRN generator device "includes a sealed casing, thereby preventing identification of the pseudorandom number generator device algorithm." Nov. 4, 1984 response at pages 3-4. Plaintiff thus agreed that his invention involves a *hardware* generator; as plaintiff conceded at the hearing, a software-only PRN generator would not require a sealed casing to prevent identification of the algorithm.

The fact that the specification states that "by implementing the PRN algorithm using software, rather than in a discrete generator, it is possible to render the algorithm reasonably inaccessible by essentially 'burying' the routine in the software," col. 5, l. 28-32, does not compel a definition of "generator device" that includes software only. As stated above, the claim uses the term "device" and states that the "device" includes a "sealed casing," thus requiring that hardware be involved. The reference to software in the specification may support an argument that a software implementation of the PRN generator is equivalent to the hardware implementation claimed, *see generally Warner-Jenkinson co. v. Hilton Davis Chemical Co.,* 520 U.S. 171 (1997), but it is insufficient to demonstrate that plaintiff *claimed* a software-only device in light of the overwhelming evidence showing that he claimed a hardware PRN generator. Plaintiff's argument that the PRN generator device may include a combination of hardware and software is likewise an equivalence argument; there is nothing in the language of the claim, the specification or the prosecution history to

support the conclusion that plaintiff specifically claimed a combination hardware/software PRN generator device.

F. "*Pseudorandom Sequence*"

Claim 1 provides that a second authorization code be a part of a "pseudorandom sequence." Col. 6, l. 10.

1. Disputed definitions

Plaintiff proposes that "sequence" means "an ordered *set* of pseudorandom numbers" (emphasis added). According to plaintiff, a "set," in turn, is a collection of particular things; a "set" can have zero, one or many elements.

Defendant proposes that a sequence be "a sequence of numbers produced by a pseudorandom number generator device."

2. Analysis

Plaintiff's proposed definition renders the word "sequence" meaningless. He does not explain how no number, that is, zero numbers, constitutes a "sequence" of numbers. Moreover, the specification supports an interpretation of sequence as requiring more than one number: "Pseudorandom sequences are characterized by sequences of *long strings of numbers* that appear as noise within portions of the *sting*." Col. 3, l. 58-60 (emphasis added). A "sting" must consist of two or more numbers.

E. Means Plus Function Claims

Two of the disputed phrases are drafted in the "means-plus-function" format. A means-plus-function element must be "construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof." 35 U.S.C. s. 112 para. 6. To construe such a claim the court must first identify the specified function. Second, the court must "consult the specification to define a structure, material or acts corresponding to this claimed function." Sage Prods., Inc. v. Devon Indus., Inc., 126 F.3d 1420, 1428 (Fed.Cir.1997). "A structure disclosed in the specification is only deemed to be 'corresponding structure' if the specification clearly links or associates that structure to the function recited in the claim." Kahn v. General Motors Corp., 135 F.3d 1472, 1476 (Fed.Cir.1998).

"Unlike the ordinary situation in which claims may not be limited by functions or elements disclosed in the specification, but not included in the claims themselves, in writing a claim in means-plus-function form, a party is *limited* to the corresponding structure disclosed in the specification and its equivalents." Kahn 135 F.3d at 1476 (emphasis added). Thus, section 112, paragraph 6 " 'operates to cut back on the type of means which could literally satisfy the claim language." ' Jonsson v. The Stanley Works, 903 F.2d 812, 819 (Fed.Cir.1990) (citation omitted).

Plaintiff's contention that "there is no requirement for a structural disclosure in a patent application" and therefore the Court can somehow construe the means element to include a structure not disclosed is unpersuasive. First, the case highlighted by plaintiff at the claim construction hearing, In re Donaldson Co., Inc., 16 F.3d 1189 (Fed.Cir.1994), held that "one construing means-plus-function language in a claim *must* look to the specification and interpret that language *in light of the corresponding structure, material or acts described therein,* and equivalents thereof, to the extent that the specification provides such disclosure." Id.

at 1193 (emphasis added). Second, while plaintiff is correct that a court may conclude that a party did not disclose a corresponding structure, material or acts in the specification (and the patent may therefore be invalid), if the Court concludes that such structure, material or act is disclosed, the party is limited to what is disclosed. *See* Kahn, 135 F.3d at 1476.

1. "Means For Reading"

The parties agree that the phrase "being read" means "being loaded from a storage device, memory or other source (such as external memory) into RAM, memory or other destination, directly accessible by a CPU, logic or processing device."

Claim 1 includes the following element: "means for reading said external memory device, said reading means located in the computer."

a. Disputed definitions

Plaintiff interprets "means for reading" as "[h]ardware, software or a combination thereof, or structural equivalents thereof, that effects the loading of data or instructions from a storage device, memory or other source (such as external memory) into RAM, memory or other destination that is directly accessible by a CPU, logic or other processing device."

Defendant interprets the phrase to mean "[h]ardware, software or a combination or structural equivalents thereof, that controls the CPU to load data or instructions from a storage device, memory or other source (such as external memory) into RAM, memory or other device that is directly accessible by the CPU."

The parties dispute whether the patent specifies that the CPU must do the reading of the data, or whether some other unspecified device may do the reading. Defendant contends that the patent is limited to the CPU, whereas plaintiff claims that patent sufficiently discloses that devices other than the CPU may do the reading.

b. Analysis

The specification and Figure 1 identifies only one "device" for reading the external memory device, the CPU. Thus, while plaintiff may be correct that a CPU is not always required to read such information, the only structure identified in the patent specification is the CPU. Since this is a "means-plus-function" element, and the specification identifies a structure corresponding to the means for reading, the claim is limited to the means identified in the specification, that is, to the CPU.

Plaintiff's argument that the specification also discloses the input/output buffers as a "means for reading," col. 3,l. 32-35, is consistent with the Court's conclusion that the structure corresponding to the "means for reading" is the CPU. The specification defines the CPU as including buffers. Fig. 1.

2. "Processing Means"

This is also a means plus function element. Claim 1 recites: "processing means located in the computer and coupled to said reading means."

a. Disputed definitions

The dispute here is the same as "means for reading" dispute: whether the specification discloses the processing means as only the CPU.

b. Analysis

Again, the only specific corresponding structure identified by the specification is the CPU. Plaintiff argues that in addition to the CPU, the specification identifies "hardware" as performing the functions of the CPU. In particular, the specification provides:

In this disclosure, *there is shown and described only the preferred embodiment* of the invention, but as aforementioned, it is to be understood that the invention is capable of use in various other combinations and environments and is capable of changes or modifications within the scope of the inventive concept as expressed herein.... The comparison step, in step 5, *may be provided by conventional hardware (not shown)* or can be provided by CPU 12 using standard software.

Col.5, l. 13-24 (emphasis added). The phrase "may be provided by conventional hardware (not shown)" is *not* a disclosure of a corresponding structure, materials or acts. The "not shown" qualifier and the preceding statement-"there is shown and described only the preferred embodiment"-explicitly state that no other structure is disclosed in the specification. To hold otherwise would eviscerate the rule that in construing a means-plus-function element "a party is limited to the corresponding structure disclosed in the specification and its equivalents." Kahn 135 F.3d at 1476.

CONCLUSION

For the foregoing reasons, the Court construes the disputed terms and phrases of the '353 as follows:

1. "Computer" means the CPU and main memory on the CPU's circuit board, which, taken together, form a part of a dedicated microcomputer system capable of executing instructions on data, and which exclude connected peripheral devices.

2. "Computer software" means a set of instructions for execution on a computer, and may include associated data.

3. "External memory device" means storage that is accessible by computer (as that term is defined above) only through input/output channels.

4. "Located in the computer" refers to a location in the computer (as "computer" is defined above.

5. "Pseudorandom number generator device" means hardware that generates, in a deterministic fashion, a sequence of numbers that appear to be random.

6. "Pseudorandom sequence" means a sequence of numbers produced by a pseudorandom number generator device.

7. "Means for reading" refers to hardware, software or a combination thereof, or structural equivalents thereof, that controls the CPU to load data or instructions from a storage device, memory or other source (such as external memory) into RAM, memory or other device that is directly accessible by the CPU.

8. "Processing means" refers to a CPU, or structural equivalents thereof, programmed to perform the recited functions of comparing the generated pseudorandom number with the second authorization code, and generating an enable signal.

IT IS SO ORDERED.

*** * CERTIFICATE OF SERVICE * ***

I, the undersigned, hereby certify that I am an employee in the Office of the Clerk, U.S. District Court, Northern District of California.

That on May 1, 2000, I SERVED a true and correct copy(ies) of the attached, by placing said copy(ies) in a postage paid envelope addressed to the person(s) hereinafter listed, by depositing said envelope in the U.S. Mail, or by placing said copy(ies) into an inter-office delivery receptacle located in the Clerk's office.

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