

construction and without the aid of expert testimony. Despite the clear language of the Court's order, Northrop attempted to assert additional grounds for invalidity and Unitrac submitted an expert declaration in support of its position. The failure of some of the parties to abide by the Court's order resulted in four procedural motions¹ which the Court subsequently ruled upon, but which delayed the Court's consideration of the actual issues addressed in the substantive motions.

After the Court addressed the procedural motions, the parties completed briefing on the two substantive motions presently before the Court: the United States' motion for summary judgment of invalidity of claims 1 and 2 of the '659 Patent and claims 1, 2, 3, 22 and 23 of the '692 Patent ("Gov't Mot.") and Northrop's motion for summary judgment of invalidity of claims 1 and two of the '659 Patent and claims 1, 2 and 3 of the '692 Patent ("Northrop's Mot.")². After careful consideration of the arguments raised by the parties, the Court finds that all of the challenged claims are invalid. For this reason, the Court will grant the Government's motion for summary judgment and deny Northrop's motion, as moot in light of the Government's motion.

I. Background

a. The Patents-in-Suit

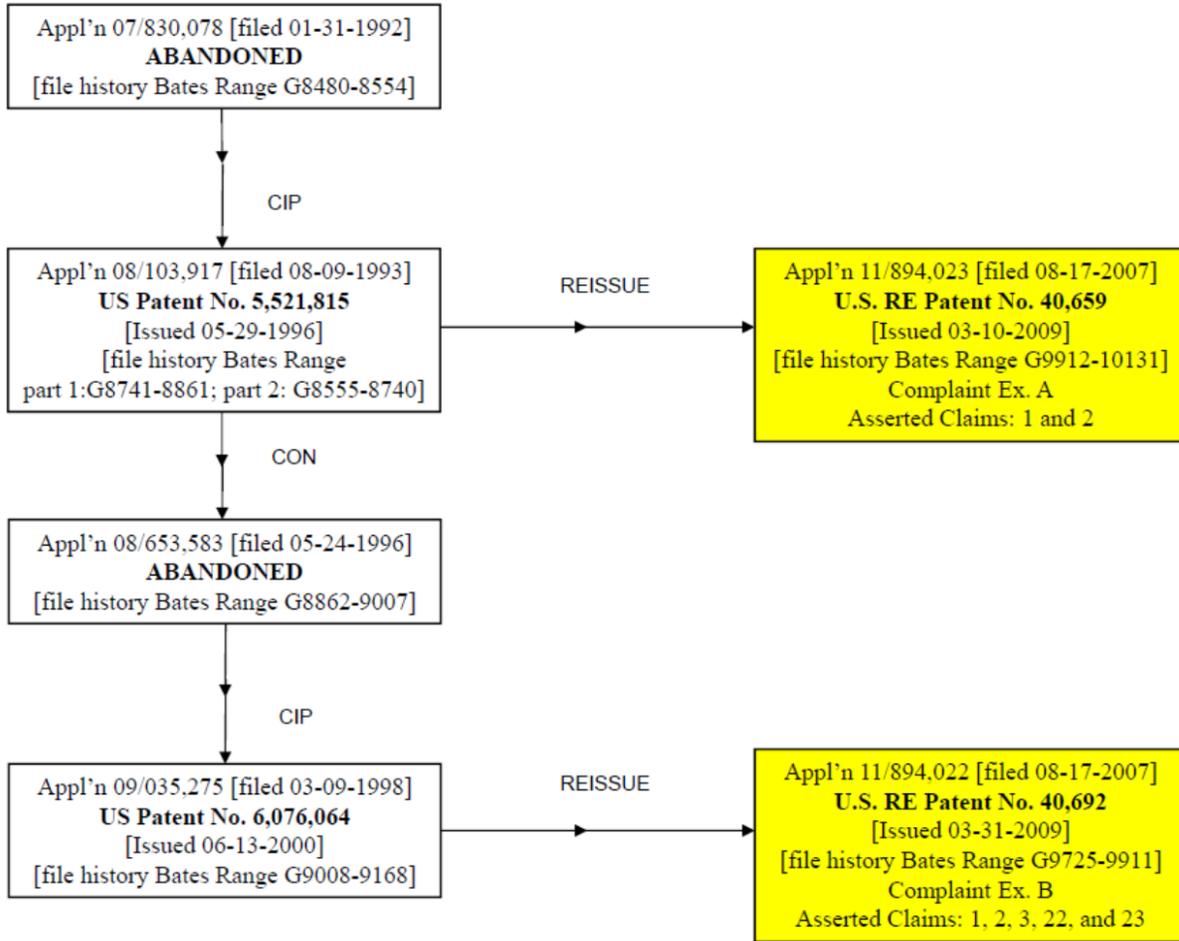
The two patents at issue in this matter are part of the same patent family. The '659 Patent, entitled "Uniform System for Verifying and Tracking Articles of Value," issued on March 10, 2009. It is a reissue of United States Patent No. 5,521,815 (the "'815 Patent"). The '815 Patent was filed as a continuation-in-part of abandoned application no. 07/830,078, which in turn was filed on January 31, 1992.

The '692 Patent, entitled "Uniform System for Verifying and Tracking the Title of Articles or Objects of Value," issued on March 31, 2009. It is a reissue of United States Patent No. 6,076,064 (the "'064 Patent"). The '064 Patent was filed as a continuation-in-part of abandoned application no. 08/653,583, which was itself a continuation of the application which issued as the '815 Patent.

The Government's brief included an "ancestry chart" to graphically describe the relationship of the patents and applications pertinent to this case. The chart is reproduced below.

¹ Unitrac filed a motion to strike Northrop's arguments that went beyond the scope of the Court's order, as well as a motion for leave to submit an expert declaration. Northrop requested that the Court consider its arguments that went beyond the Court's order. Finally, the Government moved to strike portions of Unitrac's brief, arguing that the brief itself was essentially a regurgitation of Unitrac's proposed expert declaration. The Court granted the first motion, in part, and denied all others. The Court's Order can be found at Docket No. 60.

² Northrop's motion included additional arguments for invalidity which the Court struck pursuant to Unitrac's motion to strike.



Gov't Mot. at 3.³ The two highlighted blocks represent the reissue patents asserted here.

In general, the technology described in the two patents relates to a universal system of tracking titles to articles or objects of value, such as motor vehicles, boats, land, antiques, etc. Each article is assigned a unique identification number. The patents call for a centralized database for storing title information, which can then be called upon by insurance agents, car dealers, department of motor vehicle agents, and other authorized parties.

The case appears before this Court on Unitrac's claim that the Department of Defense has instituted an asset tracking system that uses a "Universal Identifier Code" ("UIC"). According to Unitrac, the UIC has become known as the "Unique Item Identifier," which is used in the Item Unique Identification System ("IUID System"). The IUID system was implemented in order to prevent theft or loss of Government property. Unitrac alleges that the IUID infringes the patents-in-suit.

b. The Asserted Claims

³ The Chart contains a minor typographical error: the '815 Patent issued on May 28, 1996, not May 29, 1996. See '815 Patent.

Pursuant to the Court’s Special Procedures Order, Unitrac served an “Amended Initial Disclosure of Asserted Claims” asserting infringement of seven total claims: claims 1 and 2 of the ‘659 Patent and claims 1, 2, 3, 22 and 23 of the ‘692 Patent. With respect to the ‘659 Patent, claim 1 is an independent claim upon which claim 2 depends. As to the ‘692 Patent, claims 1, 2 and 22 are independent claims, while claim 3 is dependent upon claim 2 and claim 23 is dependent upon claim 22. The language of each claim is reproduced in the discussion below.

II. Legal Standard

a. Summary Judgment

“The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Rules of the Court of Federal Claims (“RCFC”) 56. When considering a summary judgment motion, the court’s proper role is not to “weigh the evidence and determine the truth of the matter,” but rather “to determine whether there is a genuine issue for trial.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). A “material fact” is one that “might affect the outcome of the suit”; a dispute is genuine if the evidence is such that a reasonable trier of fact could find for the nonmoving party. *Id.* at 248.

The party moving for summary judgment may prevail by demonstrating the absence of any genuine issues of material fact or by showing the absence of evidence to support the nonmoving party’s case. *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). If the moving party makes such a showing, the burden shifts to the nonmoving party to demonstrate that there is a genuine issue of material fact. *Id.* at 324.

Although “general assertions of facts, general denials, and conclusory statements are insufficient to shoulder the non-movant’s burden,” *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1372 (Fed. Cir. 2002), any inferences that may be drawn from the underlying facts “must be viewed in the light most favorable to the party opposing the motion.” *United States v. Diebold, Inc.*, 369 U.S. 654, 655 (1962). Similarly, “[i]n cases in which there is doubt as to the existence of a genuine issue of material fact, that doubt must be resolved in favor of the nonmovant.” *Cooper v. Ford Motor Co.*, 748 F.2d 677, 679 (Fed. Cir. 1984).

b. 35 U.S.C. § 112⁴

A patent is invalid if it fails to meet the standards set forth in 35 U.S.C. § 112, ¶ 2, which requires that “[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” Because a patent is presumed valid, 35 U.S.C. § 282, an invalidity defense must be proved by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. Partnership*, 131 S. Ct. 2238, 2242 (2011).

⁴ 35 U.S.C. § 112 was amended by the Leahy-Smith America Invents Act, dated September 16, 2011. *See* Pub.L. No. 112-29, sec. 4(c), 125 Stat. 284, 296 (2011). The amendments to § 112 did not become effective until September 16, 2012 and only apply to patent applications filed on or after September 16, 2012. *See id.* at sec. 4(e), 125 Stat. at 297. Thus, all references to § 112 in this opinion are made to the previous version of the statute.

A patentee may opt to claim his invention in means-plus-function form. A means-plus-function claim limitation may be expressed “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6. When an applicant opts to use a means-plus-function limitation in a claim, the limitation serves as “a purely functional placeholder in which structure is filled in by the specification.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1311 (Fed. Cir. 2005) (*en banc*). Means-plus-function limitations are subject to the requirements of § 112, ¶ 2. *See Noah Systems, Inc. v. Intuit, Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012) (citing *S3 Inc. v. nVIDIA Corp.*, 259 F.3d 1364, 1367 (Fed. Cir. 2001)).

The analysis of a means-plus-function claim involves two steps. “First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs the function.” *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006) (internal citations omitted).

The “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.” *B. Braun Medical Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997); *see also Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012). The question of *whether* a “corresponding structure” is included in the specification is distinct from the question of whether the disclosed structure is adequate. *See Noah*, 675 F.3d at 1311 (“Even if the specification discloses a ‘corresponding structure,’ the disclosure must be adequate; the patent’s specification must provide ‘an adequate disclosure showing what is meant by that [claim] language.’”). While questions regarding the adequacy of a patent’s disclosure may require testimony of a person of ordinary skill in the art, “the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” *Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1302 (Fed. Cir. 2005); *see also Noah*, 675 F.3d at 1312.

In cases involving computer-implemented inventions, the Federal Circuit has “consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.” *Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Rather, the specification must “disclose an algorithm for performing the claimed function.” *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008); *Aristocrat*, 521 F.3d at 1333 (“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.’”) (quoting *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)). The algorithm may be stated “in any understandable terms including as a mathematical formula, in prose, or as a flow chart or in any other manner that provides sufficient structure.” *Finisar Corp. v. DirecTV Grp., Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008) (internal citations omitted). Whatever “understandable terms” are selected, an algorithm is “a step-by-step procedure for accomplishing a given result.” *Ergo Licensing, LLC v. Carefusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012).

III. Discussion

In the following discussion, the Court divides the arguments presented into two categories, one broad and one narrow. The former category encompasses those arguments raised by Unitrac which apply equally to all theories raised in the Defendants' briefing. The latter includes the limitation-specific arguments raised by the parties.

a. Unitrac's Generally-Applicable Arguments

Unitrac raises three arguments that apply to all of the challenged claim limitations. These arguments can be addressed summarily before turning to the substantive challenges before the Court.

First, Unitrac argues that the fact that four patent examiners found the patents-in-suit valid constitutes "clear evidence" that the patents disclose a corresponding structure. Frankly, this Court is not interested in the fact that four examiners reviewed the claims at various points and let them issue. Whatever import attaches to the examination process, it is captured by the clear and convincing standard. The number of examiners over whose desks these patents passed is entirely irrelevant to the issues raised in the Defendants' motions.

Second, Unitrac argues that the Defendants have failed to produce any evidence that could meet the clear and convincing standard. But, the Court allowed the pending motions specifically because, in light of *Noah*, the Court determined that the issues could be decided entirely on the face of the patents and their prosecution histories. *See* Docket No. 30 at 1-2 (the issue "likely will be a pure legal issue—i.e., whether the specification discloses an algorithm at all—which the Court can resolve *on the intrinsic record*, without the need for expert testimony.") (emphasis added). Further, "the testimony of one of ordinary skill in the art cannot supplant the total absence of [corresponding] structure from the specification." *Default Proof*, 412 F.3d at 1302. Thus, the intrinsic record—the patents and prosecution histories—constitutes the only "evidence" necessary for the Court to determine whether the patents actually disclose corresponding structure.

Finally, Unitrac claims that the Defendants' arguments are directed to the sufficiency of the structure disclosed in the specification, not the existence of structure. Although some of the cases cited by the Defendants do refer to sufficiency, it is plain that the Defendants are arguing that the specification lacks an algorithm which corresponds to the mathematical linking, linking, and instantly receiving updates limitations. To the extent that the Defendants acknowledge the presence of any algorithms in the specification, they also argue that those algorithms correspond to other functions. *See, e.g.*, Northrop Mot. at 26 (arguing that the cited passage does not pertain to "mathematically linking" functionality, but to an unrelated function claimed elsewhere). Because the question before the Court is whether the patents disclose any structures which correspond to specifically identified means-plus-function limitations, it is not inconsistent for the Defendants to admit that the patents disclose some algorithms but none which correspond to the limitations at issue. Thus, Unitrac's argument has no merit.

b. Limitation-Specific Challenges

The pending motions challenge the validity of three separately-identifiable groups of claims: the “means for mathematically linking” claims, the “means for linking” claims, and the “means for instantly receiving updated data” claims. Each is described in greater detail below. Northrop and the Government both argue that the “means for mathematically linking” claims are invalid, while the Government alone challenges the other claims.

Before turning to these limitations, some clarification is necessary. As the Federal Circuit recently made clear, the case law on “computer-implemented means-plus-function claims is divided into two groups: First, cases in which the specification discloses no algorithm; and second, cases in which the specification does disclose an algorithm but a defendant contends that disclosure is inadequate.” *Noah*, 675 F.3d at 1313. *Noah* cites *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371 (Fed. Cir. 2009), as an example of a case where no algorithm was presented. The means-plus-function analysis in *Blackboard* arose in the context of a claim limitation with *four* means-plus-function clauses. *Blackboard*, 574 F.3d at 1382. Only one was challenged, and it was to that clause alone that the finding of “no algorithm” was directed.

The Court highlights *Blackboard* because the patents-in-suit also contain numerous means-plus-function limitations. For example, claim 1 of the ‘659 Patent contains eight separate elements; seven of these are means-plus-function limitations. As in *Blackboard*, a finding of “no algorithm” does not mean that there is literally no algorithm disclosed in the specification. Rather, it means that no algorithm is disclosed which corresponds to the claimed function.

i. The “Means for Mathematically Linking” Limitations

Pursuant to the Court’s special procedures order, Unitrac provided the Defendants with a list of claims that it intended to assert in this action. The Defendants then identified a number of claim limitations that they believed indefinite. Presently, the Defendants charge that claim 1 of the ‘659 Patent and claims 1 and 2 of the ‘692 Patent are invalid because they contain “means for mathematically linking” limitations which lack corresponding structure in the specification. The challenged limitations are as follows⁵:

In claim 1 of the ‘659 Patent:

(g) means for mathematically linking said identifying number, said title number and said registration number to create a uniform system of tracking the article independent of preexisting tracking systems, said uniform system having further means for accepting and updating data relating to the article.

‘659 Patent at 18:3-8.

In claim 1 of the ‘692 Patent:

⁵ Because these patents have been reissued, [bracketed] language indicates text that was deleted during the reissue proceedings, while *italicized* language indicated text that was added at that time.

(g) means for mathematically linking said identifying number, said title number and said registration number [to create a uniform system of tracking the article independent of preexisting tracking systems].

‘692 Patent at 18:28-31.

In claim 2 of the ‘692 Patent:

(g) means for mathematically linking said first, second [or] and third identifying numbers, or any combination of said identifying numbers, [to create a uniform system for tracking the history of an article or object independent of preexisting tracking systems said] *the* uniform system further having means for accepting and updating data relating to the article or object.

Id. at 18:52-58.

In response to the Defendants’ identification of the claims they believed invalid, Unitrac produced its “Identification of Corresponding Structure.” Unitrac cited several portions of the specification in its response. For claims 1 and 2 of the ‘692 Patent, Unitrac cited 6:40-62; 9:41-44; 13:22-28; 14:45-62; FIG. 1B; FIG. 2; and FIG. 3. *See* Gov’t Ex. A67. For claim 1 of the ‘659 Patent, it cited 6:23-45;9:23-26; 13:1-7; 14:22-38; FIG 1A; FIG. 2; and FIG. 3. *Id.* at A69. With the exception of the citations to FIG. 1A and FIG. 1B, the disclosures in the written description and the other Figures are substantially identical between the two patents.⁶ Unitrac also referred to the Reissue Prosecution History for U.S. Reissue Patent No. 40,692, Amendment and Response dated May 1, 2008 at 13-19 for all three limitations, including the limitation in the ‘659 Patent. *See id.* at A67; A69.

Essentially, both Defendants assert that there is no structure disclosed in either the ‘659 or ‘692 Patent that corresponds to the “means for mathematically linking” limitations. The Government highlights the evolution of the claims, noting that no “linking” limitations appeared in the original claims, and that the claim that eventually included the “means for mathematically linking” limitation was rejected several times, even though the patents did eventually issue with that language included in the claims.

Northrop addresses each of Unitrac’s citations in the Identification of Corresponding Structure in turn. Northrop argues that the portions of the specification cited by Unitrac either do not disclose an algorithm or that, to the extent that certain portions do disclose algorithms, those algorithms pertain to other means-plus-function limitations. As to the cited figures, Northrop argues that none of Figures 1A, 2 or 3 pertain to the claimed functionality. Finally, Northrop argues that the alleged identification in the prosecution history of the corresponding structure to the claimed functionality does not satisfy the legal requirement that the specification itself include the structure.

⁶ The only difference that the Court has identified is a typographical error. The ‘692 Patent refers to the “match-up of data”, ‘692 Patent at 14:57, while the ‘659 Patent refers to the “match-
hp of data.” ‘659 Patent at 14:32.

Unitrac points to a brief excerpt, present in both specifications, to support its contention that a corresponding structure is disclosed. That excerpt states:

The reduction of the existing four separate data base keys (VIN, title, registration I.D. number, owner) of the existing systems, to one-key (VIN=title=registration I.D. number) has its basis in mathematics and computer logic.

‘659 Patent at 14:22-25; ‘692 Patent at 14:46-49.⁷ This excerpt is the only portion of the patent that Unitrac cites in its briefing as a basis for its contention that the specification discloses a structure corresponding to the “means for mathematically linking” limitations.⁸ Unitrac asserts that “[o]ne of ordinary skill in the art would recognize that ‘VIN=title=registration I.D. number’ is an algorithm which teaches how to reduce multiple keys to one key by mathematically linking them via the process of concatenation.” Unitrac Br. at 24. One of ordinary skill, according to Unitrac, would recognize that the equation above “entails performing string (explicitly ‘bit by bit’) operations to form a key that when compared yields a true/false (0/1) value.” *Id.* Unitrac makes this argument only in the context of the language of claim limitation 1(g) of the ‘659 Patent, but the Court presumes that it is intended to apply across the three “mathematically linking” claims.

Citing *Ergo Licensing*, 673 F.3d 1361, the Government argues that Unitrac has still failed to identify an algorithm because the “VIN=title=registration I.D. number” is not a step-by-step procedure. Gov’t Reply at 9. In the Government’s eyes, the referenced passage merely “describe[s] an outcome, not a means for achieving that outcome.” *Id.* (quoting *Blackboard, Inc. v. Desire2Learn, Inc.*, 574 F.3d 1371, 1384 (Fed. Cir. 2009)).

Northrop likewise attacks Unitrac’s position based on *Ergo Licensing*. In addition, Northrop explains in great detail why Unitrac’s proposal presents an unreasonable reading of the patent. It also notes that neither patent references “string operations,” which Unitrac claims is disclosed via the equals sign (“=”) in the equation.

The Court concludes that the “means for mathematically linking” limitations lack corresponding structure, such that they are invalid for failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. Initially, Unitrac’s position here is inconsistent with its position during prosecution. Specifically, after quoting the same excerpt in a response during prosecution, the patentee called the excerpt “introductory language,” and stated that the pages following this “introductory language” “describe methods by which the VIN, title, and registration I.D. number are mathematically linked together.” Unitrac’s Exh. at A129. So, the prosecution history

⁷ “VIN” stands for “vehicle identification number.” See ‘659 Patent at 2:18.

⁸ As the Court has already expressed, Unitrac identified the following excerpts in its Identification of Corresponding Structure: 6:40-62; 9:41-44; 13:22-28; **14:45-62**; FIG. 1B; FIG. 2; and FIG. 3 of the ‘692 Patent and 6:23-45;9:23-26; 13:1-7; **14:22-38**; FIG 1A; FIG. 2; and FIG. 3 for the ‘659 Patent. The excerpt upon which Unitrac relies is a portion of the bolded citations. The Court has reviewed the other selections, but does not see anything of import. The Court presumes that Unitrac arrived at the same conclusion since it did not mention any of them in its argument on the “means for mathematically linking” limitation.

reflects that the applicant did not believe that “VIN=title=registration I.D. number” was an algorithm, but instead, that it was merely “introductory language.”

Moreover, the Court has some difficulty in referring to “VIN=title=registration I.D. number” as an “algorithm” in any sense. An algorithm is “a step-by-step procedure for accomplishing a given result.” *Ergo Licensing*, 673 F.3d at 1365. What Unitrac has cited is a mathematical equation that states that three numbers are equal. As the Government observes, the “VIN=title=registration I.D. number” relationship “is not an algorithm that describes how the function is performed, but is merely a mathematical expression that describes the outcome of performing the function.” *Aristocrat Techs.*, 521 F.3d at 1334. Without something more, the equation does not “clearly link[] or associate[] that structure to the function recited in the claim.” *Braun Medical*, 124 F.3d at 1424.

Even if the Court accepted Unitrac’s contention that this expression is an algorithm, which it emphasizes that it does not, the Court would still be compelled to conclude that the “means for mathematically linking” limitations lack corresponding structure. To the Court’s mind, based on the briefs, the expression cited by Unitrac—“VIN=title=registration I.D. number”—can be read in three varying degrees of abstractness. Under *any* of the three, there remains no structure for performing the “mathematically linking” function.

First, the expression can be read at face value: three values are made equal to each other. In that case, the expression clearly corresponds to two other claim limitations that are present in each of the “mathematically linking” claims in some form:

- (e) means for creating a title number identical to said identifying number;
- (f) means for creating a registration number identical to said identifying number.

‘659 Patent at 17:66-18:2. *See also* ‘692 Patent at 18:24-27; 18:47-50. Put in mathematical terms, claim limitation (e) states that “title number” = “identifying number” and (f) states that “registration number” = “identifying number.” Because a VIN is just a type of identifying number, these two equations state that VIN = title number = registration number. This is the same expression as Unitrac’s proposed algorithm. Thus, the “VIN=title=registration I.D. number” equation, if treated as an algorithm, covers two alternative means-plus-function limitations, but not the “means for mathematically linking” limitation. If the expression is taken at face value, it does not provide structure to the “mathematically linking” limitations, but instead to other functional limitations. This reading makes the most sense, given that the claim language (title, registration number, and identifying number) are clearly linked to the terms in the expression (title, registration I.D. number, and VIN).

Second, if the Court accepts Unitrac’s strained (and wholly unsupported) attempt to claim that “=” does not mean “equals,” but instead means “concatenate,” then again no structure is disclosed for *mathematically* linking. By way of example, if one has four values—“Have”, “a”, “nice”, “day.”—and concatenates them, the result is “Have a nice day.” No addition, subtraction, multiplication, division, or any other remotely *mathematical* function takes place.

Turning to the VIN expression, one could assign values to each variable⁹—VIN=123, title=123, and registration I.D. number=123—such that the concatenation of these three numbers is 123123123. Again, no mathematical calculation has taken place in the process of “linking” these three numbers. To the extent that one could even remotely envision that it *is* mathematical, the expression “merely describes the outcome of performing the function,” *Aristocrat Techs.*, 521 F.3d at 1334, but it does not describe a step-by-step process for achieving the same.

Third, the Court notes that the language upon which Unitrac relies actually appears in a discussion of validation checking. *See* Gov’t Mot. at 25-27. For reference, the Court reproduces the paragraphs immediately surrounding the one Unitrac has cited (emphasis added; the bolded language is the portion cited by Unitrac):

The program then proceeds to FIG. 1G and a check is made for appropriate validation of input 204. This is where the computer *validates all of the existing data to make sure it is accurate*. The invention *may use the data check methods described below*, using an *electronic fingerprint* or triangulated data check, or it may use any of the known methods of conducting data checks, such as sequential matching.

The reduction of the existing four separate data base keys (VIN, title, registration I.D. number, owner) of the existing systems, to one-key (VIN=title=registration I.D. number) has its basis in mathematics and computer logic. The Boolean logic requirements for bit by bit sorting becomes greatly simplified in search and match procedures and would greatly enhance the central data base capabilities *to cross-match and verify data*. This greatly reduces the logic requirements of the search program to a simple “and/or” logic sequence.

Further, by assigning a mathematical value (sin; cos; etc.) to ASC II decimal, binary, octal and hexadecimal modes during data input even faster recall and match-hp [sic] of data is accomplished during and/or procedures.

It will be understood that this invention may use the assignment of mathematical values creating *unique algorithmic* [sic] *means for sorting or pre-sorting data and verifying data*, but is not limited to use of those means.

Each alpha-numeric symbol has a unique corresponding ASC II value in electronic impulse. In one method, the computer assigns the ASC II code value for each alpha-numeric symbols of a partial VIN or other number, calculates the sin [sic] of the particular ASC II code value and then plots those values as shown in FIG. 4. In this manner, a graphic representation or “*electronic fingerprint*” is created for each VIN, title, etc. which is used to compare the aggregate graph of data input, or to compare the on-file alpha-numeric “*electronic fingerprint*” as data is input key by key or in the aggregate on a computer keyboard or using light waves of varying frequencies to represent each ASC II value; or by using sound waves converted to electronic signals, radio waves, etc. A simple graphic representation of each symbol (in its proper order and sequence) is easily detected

⁹ The Court assigns the same value to each variable because the two claim limitations immediately preceding the mathematically linking limitations require all three variables to be identical.

in order to correct errors of mismatch when updating or cross-matching files or used for bulk-information presorting when handling large volumes of data.

‘659 Patent at 14:14-56. The italicized language all relates to sorting and/or verifying data in the system. The sorting and verification discussion begins before Unitrac’s excerpt, and it continues after. Read from this angle, Unitrac’s “algorithm” appears to be part of a validation process. In that case, the disclosed structure could potentially correspond to, for example, claims 3, 5, 6 or 7 of the ‘659 Patent. *See id.* at 18:23-25; 18:28-38.¹⁰

All said, Unitrac’s argument simply does not comport with a plain, or even tortured, reading of the patent. The Court is not persuaded that “VIN=title=registration I.D. number” is an algorithm in accord with Federal Circuit precedent. To the extent that this expression can even loosely be construed as an algorithm, it plainly does not correspond to the “mathematically linking” limitations. Thus, neither patent’s specification discloses a structure which corresponds to the “mathematically linking” limitations. Therefore, the Court finds that claim 1 of the ‘659 Patent and claims 1 and 2 of the ‘692 Patent are invalid under 35 U.S.C. § 112, ¶ 2 for failure to disclose corresponding structure of the “means for mathematically linking” means-plus-function limitations, as required by 35 U.S.C. § 112, ¶ 6. Because dependent claims “shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered,” 35 U.S.C. § 112, ¶ 4, claim 2 of the ‘659 Patent and claim 3 of the ‘692 Patent are also invalid due to the lack of corresponding structure in the specification.

ii. The “Means for Linking” Limitation

The Government alone challenged claim 22 of the ‘692 Patent on the basis of § 112. Although the Government’s attack on this claim is raised concurrently with its challenge to the “means for mathematically linking” limitations, the Court views the underlying issues as sufficiently distinct to merit an independent discussion of claim 22. That said, the Court concludes that the same outcome is appropriate here: claim 22 of the ‘692 Patent is invalid for lack of a corresponding structure in the specification.

The Government challenges the following limitation:

(g) means for linking the first identifying number with the history file [to create a uniform system of tracking the article of value], said uniform system further having means for accepting and updating data relating to the article object [sic].

‘692 Patent at 20:53-57. The briefing reveals that the Government challenges the claim language on two grounds: first, because the applicant effectively merged the meaning of the “means for linking” and “means for mathematically linking” limitations during prosecution and second, because of the lack of corresponding structure in the specification of the ‘692 Patent itself.

¹⁰ The Court reaches no conclusions on this particular issue. It refers to the claims only for illustrative purposes.

1. Prosecution History

According to the Government, there is no structure which corresponds to the “means for linking” limitation because arguments made during prosecution rendered the “means for linking” and “means for mathematically linking” limitations identical. Unitrac does not directly respond to this argument, but the Court, after its own consideration, is not persuaded by the Government’s argument.

The Government observes that, in response to a rejection of the “means for mathematically linking” limitation during reissue proceedings, Unitrac stated the following:

The function “linking” refers to joining or connecting with. Further, as used in the computer and software arts, there is a notion of linking different elements in a database together, such a [sic] record or a file, using a key, as is known in the art.

The function associated with “means for mathematically linking[“] or **“means for linking”** is tied to those elements which are being linked. As recited in the claims at issue, either two or more numbers are mathematically linked. **Alternatively, a number and a file are linked.** As discussed below, the function and structure associated with linking such objects must be able to connect numerical objects with each other **or to a computer file.**

Gov’t Mot. at 19 (citing A496) (emphasis in Gov’t Mot.). Thus, the Government argues that Unitrac took the position, during prosecution, that the “means for mathematically linking” and “means for linking” limitations perform the same function. Presumably, if the structure is lacking for one of these functions, it must be lacking for both.

Rather than tying “linking” and “mathematically linking” together as one function, the Court reads the prosecution history as describing “linking,” and then further defining “mathematically linking” in light of the proposed definition of “linking.” The applicant expressly stated that it was addressing “the claims at issue,” and claim 22 was not at issue. Instead, the statement was made in response to rejections of claims 1, 2, 14, 21 and 24, all of which contain some form of mathematical linking limitation. This leads the Court to believe that Unitrac’s position during prosecution was that “linking” meant one thing, and “mathematically” modified that meaning; it did not take the position that “linking” and “mathematically linking” are identical in scope.

2. Lack of Corresponding Structure in the Specification

Because the Government’s brief treats “means for linking” and “means for mathematically linking” as identical in scope, the Government has not raised an independent argument that the “means for linking” limitation lacks corresponding structure. In its response, however, Unitrac points the Court to the part of the specification which it believes contains the corresponding structure. Specifically, Unitrac asserts that the specification’s use of the word “assigned” in the following excerpt is as “a term of art in computer science that instructs setting the first identifying number to portions of the history file, thereby linking them.” *Id.*

Once the title number and registration number are assigned (and the shortened registration number, when applicable) are [sic] created, the computer now is able to access an unlimited, title history to record all important transactions pertaining to the article in a congruent and continual manner.

The computerized central data base is connected by computer modem, RF device and/or other communication devices to various parties involved in the article so that the title may be updated even when no exchange is involved. For example, where the article is insured, as most articles of value are, the insurance agent has access to the data base and updates the title to reflect any damage and subsequent repairs to the articles. Thus, whenever a buyer purchases an item he can simply look at the title and learn the complete history of the article.

Id. (citing ‘692 Patent at 7:34-39; 8:31-41).

The Government replies by noting that nothing in the cited passages identifies any structure corresponding to the claim limitation. It notes numerous flaws in the cited passages, including: the fact that nothing in the excerpt refers to a “first identifying number”; nothing shows how the “title history file” is linked to the “first identifying number”; the second paragraph (the “column 8” disclosure) only describes accessing a “title,” and not a “title history file”; and finally, that column 8 does not specify what is being “update[ed]”.¹¹

While the Court could perhaps draw some inferences in favor of Unitrac with respect to three of the Government’s arguments, it is clear that Unitrac has not pointed the Court to anything that shows how the “title history file” and “first identifying number” are linked, as the Government suggests. The specification simply says that a computer is able to access the title history, while the title itself is updated.¹²

The Court agrees with the gist of the Government’s position, which is that the terminology used in the patent leaves one unsure as to what is covered by the “means for linking” limitation. The Court’s concern is perhaps most effectively emphasized by Unitrac’s assertion that “assign[ment]” in the specification establishes “linking” in the claim. The title number and registration number “are assigned,” but to what we do not know. If, as Unitrac asserts, “assign[ment]” was well-known in the art, why was it not used in the claim instead of “linking”? This type of sleight-of-hand is precisely what is precluded under § 112, ¶ 6. That statute does not allow functional claiming “[i]f the specification is not *clear* as to the structure that the patentee intends to correspond to the claimed function.” *Medical Instrumentation*, 344 F.3d at 1211 (emphasis added).

¹¹ The Government also addresses the grammatical issues present, but the Court is not persuaded that this language is so incomprehensible as to render the patent invalid.

¹² Although there are a number of references in the selected passages to the “title,” the patent makes clear that the title and title history file are distinct: “Although the title history is maintained on the centralized computer data base..., the actual title may be issued by the DMV.” ‘692 Patent at 7:53-55. Thus, references only to the title do not satisfy Unitrac’s burden to establish a link between the “first identifying number” and the title history file.

As the Government has argued, “[t]he duty of a patentee to clearly link or associate structure with the claimed function is the quid pro quo for allowing the patentee to express the claims in terms of function under section 112, paragraph 6.” Gov’t Reply at 13 (quoting *Medical Instrumentation and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1211 (Fed. Cir. 2003)). The Court agrees with the Government that Unitrac has not clearly associated any structure with the claim limitation. The Court concludes that claim 22 of the ‘692 Patent is invalid for failure to disclose a structure corresponding to the “means for linking” limitation. Moreover, because claim 23 is dependent upon claim 22, and therefore incorporates the invalid limitation, it too is invalid.

iii. The “Means for Instantly Receiving Updated Data” Limitations

Finally, the Government alternatively challenges claims 2 and 22 of the ‘692 Patent based on two additional limitations. Even though the Court has already found both claims invalid, the Court will briefly address this alternative basis for invalidity. With respect to claim 2, the Government asserts that the following means-plus-function limitation is not supported by any corresponding structure:

(h) means for providing said uniform system to a plurality of users, having means for enabling said users to input data relating to the article or object, and means for instantly receiving updated data relating to the article or object.

‘692 Patent at 18:59-63. Likewise, the Government challenges claim 22 based on the following limitation:

(h) means for providing said uniform system to a plurality of users, so as to enable said users to input data relating to the article or object of value, and instantly receiving updated data relating to the article or object of value.

Id. at 20:58-61.

In the Government’s view, both of these limitations comprise two distinct functions: (1) providing access to users to enable them to input data relating to the article or object and (2) allowing the users to instantly receive updated data relating to the article or object. Gov’t Mot. at 29. The Government concedes that the first function “may” have a corresponding structure; it asserts that there are no algorithms that disclose that a user instantly received updated data.

Unitrac responds with another quote from the ‘692 Patent:

FIGS. 1A-1H show a flow chart of the system for handling transactions relating to motor vehicles. The computer is an open system environment and can communicate with any other computer system. To access the computer, the authorized users (i.e., auto dealers, salvage dealers, insurance agents, and the DMV) have an authorized entry code which is transmitted from a remote terminal

2 via a modem or RF device 4 to the data storage facilities 8, as shown in FIG. 1A. This is done in real time, with a relational data base with a high degree of security, fault tolerance and parallel processing.

'692 Patent at 11:61-12:4. Unitrac claims that one of ordinary skill in the art would understand that "the updated data relating to the article or object is received 'instantly' 'via a modem or RF device' and 'parallel processing.'" Unitrac Resp. at 27.

The Government argues, via reply, that Unitrac has failed to address the issue raised, which is that the second functional limitation—allowing users to instantly receive the updated data—is not disclosed in the excerpt cited by Unitrac. The Government's point is that "the plurality of users" are the ones who must "instantly" receive the "updated data."

The claims are not as clear as the Government posits. While the Government's position is that the claims require (1) a means for providing a uniform system to users; (2) enabling users to input data relating to the article or object; and (3) allows all of the users to instantly receive the updated data (presumably without any action being taken by the users), there is another reading that *could* be supported by the claims. That is, that there is a (1) means for providing a uniform system to users; (2) enabling users to input data to the system; and (3) a means for the *system* to instantly receive updated data. This reading is at least plausible because the two operative phrases in both claims are "providing" and "receiving," such that the "providing" function is directed towards the users, while the "receiving" function is not. Moreover, under such a reading, Unitrac's disclosure of a modem (or other communication device) could satisfy the structure necessary to perform both functions, because the modem would provide access to the uniform system to a plurality of users while allowing the system to receive updated data relating to the article or object. This, however, is a question for claim construction, which the Court has expressly declined to consider at this stage of litigation. For this reason, the Court declines to grant summary judgment to the Government on this basis.

IV. Conclusion

All said, the Court has found that claims 1-2 of the '659 Patent and claims 1-3 and 22-23 of the '692 Patent are invalid because they incorporate at least one means-plus-function claim which lacks a corresponding structure in the specification.

Although it appears that this holding will adversely impact a number of claims that have not been asserted, it also appears to the Court that at least claim 20 of the '659 Patent remains valid. To this end, the parties shall confer and file with the Court a joint status report indicating how they wish to proceed. This joint status report is due May 14, 2013.

s/ Edward J. Damich _____
EDWARD J. DAMICH
Judge