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**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA**

CARY A. JARDIN,

Plaintiff,

vs.

DATALLEGRO, INC. and STUART
FROST,

Defendants.

Case. No. 08-CV-1462-IEG (RBB)

**ORDER REGARDING CLAIM
CONSTRUCTION OF UNITED
STATES PATENT 7,177,874**

Plaintiff Cary Jardin filed this action against Defendants Stuart Frost and Datallegro, Inc. for patent infringement. A claim construction hearing in this case was held on September 16, 2010. After review of the parties’ claim construction briefs and materials submitted in connection with the hearing, the Court issues the following order construing the disputed terms of the patent.

BACKGROUND

The patent at issue is United States Patent Number 7,177,874 (the “874 Patent”). The ‘874 Patent generally relates to distributed processing in computer systems. “More particularly, the invention relates to systems and methods for increasing the performance of computer systems by distributing the data processing load among multiple processors in a clustered environment.” ‘874 Patent, Col. 1, lines 35-39. As described in the Background of the Invention, the ‘874 Patent addresses the “bottleneck” problem with existing database systems and speeds data retrieval. Col.

1 3, lines 1-7. At issue here are terms from independent claims 1, 8, and 15, and dependent claims
2 9, 12, and 14.

3 Plaintiff filed the Complaint on August 12, 2008, and the First Amended Complaint on
4 August 22, 2008. Defendants filed an Answer and a Counterclaim for a declaration of
5 non-infringement. Plaintiff filed an Answer to the Counterclaim.

6 LEGAL STANDARD

7 In construing claims, the Court must look first to the language of the claims themselves.
8 Middleton, Inc. v. Minnesota Mining & Mfg. Co., 311 F.3d 1384, 1387 (Fed. Cir. 2002). To that
9 end, “the words of a claim ‘are generally given their ordinary and customary meaning.’” Phillips v.
10 AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005). The inquiry into how a person of ordinary
11 skill in the art understands a claim term provides an objective baseline from which to begin claim
12 interpretation. Id. More specifically, “the ordinary and customary meaning of a claim term is the
13 meaning that the term would have to a person of ordinary skill in the art in question at the time of
14 the invention, as of the effective date of the patent application.” Id. at 1313.

15 The specification is “‘always highly relevant to the claim construction analysis.’” Id. at
16 1315 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996).
17 “Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” Phillips,
18 415 F.3d at 1315. Phillips invited courts “to rely heavily on the written description [in the
19 specification] for guidance as to the meaning of the claims.” Id. at 1317. For example, the
20 specification may show that the inventor assigned a meaning to a claim term that differs from the
21 claim’s ordinary meaning, and, in that case, “the inventor’s lexicography governs.” Id. at 1316.

22 Under Federal Circuit precedent, a patentee’s choice of embodiments can shed light on the
23 intended scope of the claim, but a patent claim term is not limited merely because the
24 embodiments in the specification all contain a particular feature. On the other hand, a construction
25 that excludes a preferred embodiment is rarely, if ever, correct. C.R. Bard, Inc. v. United States
26 Surgical Corp., 388 F.3d 858, 865 (Fed Cir. 2004) (internal citations and quotations omitted). The
27 decision whether to limit a claim to the embodiments in the specification “depends in each case on
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1 the specificity of the description of the invention and on the prosecution history.” Cultor Corp. v.
2 A.E. Staley Mfg. Co., 224 F.3d 1328, 1331 (Fed Cir. 2000). The mere fact that a specification
3 discloses a single embodiment is not enough. Liebel-Flarsheim Co. v. Medrad, 358 F.3d 898, 907
4 (Fed. Cir. 2004).

5 The court should rely on extrinsic evidence “[o]nly if a disputed claim term remains
6 ambiguous after analysis of the intrinsic evidence.” Pickholtz v. Rainbow Techs., Inc., 284 F.3d
7 1365, 1372-73 (Fed. Cir. 2002). Extrinsic evidence is defined as ““all evidence external to the
8 patent and prosecution history, including expert and inventor testimony, dictionaries, and learned
9 treatises.”” Phillips, 415 F.3d at 1317 (quoting Markman v. Westview Instruments, Inc., 52 F.3d
10 967, 980 (Fed Cir. 1995), *aff’d* 517 U.S. 370 (1996)). Extrinsic evidence is separate from the
11 patent, prepared for litigation purposes, and not necessarily reflective of the perspective of an
12 ordinary person skilled in the art. Id. at 1318. A court must not use extrinsic evidence “to vary,
13 contradict, expand, or limit the claim language from how it is defined, even implicitly, in the
14 specification or [prosecution] history.” Dow Chem. Co. v. Sumitomo Chem. Co., Ltd., 257 F.3d
15 1364, 1373 (Fed. Cir. 2001).

16 DISCUSSION

17 **A. Person of Ordinary Skill in the Art**

18 Plaintiff requests that the Court make an express finding as to what a person of ordinary
19 skill in the art is for the ‘874 Patent. Plaintiff proposes such person is: “a person having a
20 bachelor’s degree in computer science or software engineering and having one or both of the
21 following: (1) several years of experience relating to the design and development of relational
22 database management systems; or (2) a graduate degree in computer science or software
23 engineering with at least one year of experience with relational database management systems.”
24 Defendants do not raise any objection. Accordingly, the Court adopts Plaintiff’s definition of a
25 person of ordinary skill in the art for the for the ‘874 Patent.
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1 **B. Claim 1**

2 Claim 1 of the '874 Patent recites:

3 A method of processing a query command in a distributed computing system in
4 which a plurality of database tables are stored on a plurality of nodes, different
5 portions of at least one database table being stored on at least two of the nodes, the
6 method comprising:

7 storing a first portion of a first database table and a first portion of a second
8 database table on a first node, and

9 storing a second portion of a first database table and a second portion of a
10 second database table on a second node;

11 determining a join table definition in response to a query command, said
12 join table definition identifying a subset of said first database table to
13 include in executing said database query command;

14 generating a first join table from said first portion of said first database table
15 in accordance with said join table definition, and

16 generating a second join table from said second portion of said first database
17 table in accordance with said join table definition;

18 transmitting said first join table to said second node, and
19 transmitting said second join table to said first node;

20 comparing said first portion of said second database table with said first join
21 table, and

22 comparing said second portion of said second database table with said
23 second join table to generate a first intermediate results file;

24 comparing said first portion of said second database table with said second
25 join table, and

26 comparing said second portion of said second database table with said first
27 join table to generate a second intermediate results file; and

28 generating a final results file from said first intermediate results file and said
second intermediate results file.

29 The parties seek to have the Court construe several terms in claim 1. The Court addresses
30 each in turn.

31 *I. Preamble*

32 The Court addresses the preambles for claims 1, 8, 15 together, and reaches the same
33 conclusion as to each. Defendants assert the preambles should be construed as substantive claim

1 limitations. Plaintiff contends the preambles merely recite a use or function for the claims, and the
2 bodies of the claims fully set out all of the limitations of the claimed invention.

3 The Court agrees with Plaintiff that the preambles are not limiting, and therefore do not
4 need construction. In general, a preamble limits the invention if it recites essential structure or
5 steps, or if it is “necessary to give life, meaning, and vitality” to the claim. Pitney Bowes v.
6 Hewlett Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999). Conversely, a preamble is not limiting
7 “where a patentee defines a structurally complete invention in the claim body and uses the
8 preamble only to state a purpose or intended use for the invention.” Rowe v. Dror, 112 F.3d 473,
9 478 (Fed. Cir. 1997). “The use of different language in the preamble than in the body of the claims
10 does not suggest that the preamble imposes a limitation.” Symantec Corp. v. Computer Assocs.
11 Int’l, 522 F.3d 1279, 1289 (Fed. Cir. 2008). Instead, “[i]t is assumed that the preamble language is
12 duplicative of the language found in the body of the claims or merely provides context for the
13 claims, absent any indication to the contrary in the claims, the specification or the prosecution
14 history.” Id.

15 Here, the preambles only state the use for the inventions - processing a query command in
16 a distributed computing system. See Rowe, 112 F.3d at 478. Therefore, the preambles of claims
17 1, 8, and 15 are not substantive claim limitations.

18 2. “Database”

19 Defendants assert “database” should be construed to mean “a collection of information
20 organized in such a way that a computer program can quickly access desired pieces of data.”
21 Defendants’ construction is drawn directly from the definition of “database” provided in the
22 Background of the Invention of the specification. Col. 1, lines 48-51 (“A database (DB) is a
23 collection of information organized in such a way that a computer program can quickly access
24 desired pieces of data.”). Plaintiff asserts the term is entitled to its ordinary meaning, but if the
25 Court deems construction necessary, “database” should be construed to mean “a SQL-compatible
26 or other relational database.”
27
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1 The Court agrees with Defendants that Plaintiff acted as his own lexicographer by defining
2 “database” in the specification. Where a patentee explicitly defines a claim term in the
3 specification, he acts as his own lexicographer and that definition trumps others. Sinorgchem Co.,
4 Shandong v. Int’l Trade Comm’n, 511 F.3d 1132, 1136 (Fed. Cir. 2007) (“the patentee must be
5 bound by the express definition.”) (citations omitted). “The patentee’s lexicography must, of
6 course, appear ‘with reasonable clarity, deliberateness, and precision’ before it can affect the
7 claim.” Renishaw PLC v. Marposs Societa’ per Azioni, 158 F.3d 1243, 1249 (Fed. Cir. 1998).
8 Here, Plaintiff’s definition of “database” was deliberate and clear. In addition, there is nothing in
9 the claims or specification that limits “database” to “a SQL-compatible or other relational
10 database.” “Absent a special and particular definition created by the patent applicant, terms in a
11 claim are to be given their ordinary and accustomed meaning.” Id. at 1249-50. Thus, when a
12 claim term is expressed in general descriptive words, the Court may not “add a narrowing modifier
13 before an otherwise general term that stands unmodified in a claim.” Id. Moreover, Plaintiff’s
14 construction does not actually define “database,” but rather specifies a particular type of database.

15 Therefore, the Court construes “database” to mean “a collection of information organized
16 in such a way that a computer program can quickly access desired pieces of data.”

17 3. “Node”

18 Defendants assert “node” should be construed to mean “a processor or computer with a
19 memory.” Defendants’ construction is based on the description of “node” in the Detailed
20 Description of Certain Embodiments in the specification: “[e]ach node can be a processor with a
21 main memory. Alternatively, each node can be a computer with a main memory.” Col. 7, lines
22 31-35. Plaintiff contends this term is entitled to its ordinary meaning, but if the Court deems
23 construction necessary, “node” should be construed to mean “a processor or computer on which
24 runs a SQL-compatible or other relational database.”

25 The parties’ constructions are similar in that they construe “node” to mean a processor or
26 computer. Similar to the above analysis of “database,” there is nothing in the intrinsic evidence
27 requiring a “node” to be a processor or computer “on which runs a SQL-compatible or other
28

1 relational database.” See Renishaw, 158 F.3d at 1249 (explaining the court may not “add a
2 narrowing modifier before an otherwise general term that stands unmodified in a claim”).

3 Therefore, the Court construes “node” to mean “a processor or computer with a memory.”
4 A “node” is not limited to a processor or computer “on which runs a SQL-compatible or other
5 relational database.”

6 4. “*In response to a query command*”

7 The parties dispute the term “in response to a query command,” which appears repeatedly
8 in the context of the phrase “determining [a join table definition] in response to a query
9 command.” Because the parties do not dispute the meaning of “a query command,” the specific
10 issue is the meaning of “in response to.” Defendants assert “in response to” should be construed to
11 mean “after receiving.” Plaintiff contends this term is entitled to its ordinary meaning, and that the
12 ordinary meaning of “in response to” is “in response to.”

13 The Court relies on the plain and ordinary meaning of “in response to.” See Interactive
14 Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed. Cir. 2001) (where claim
15 language is clear on its face “then our consideration of the rest of the intrinsic evidence is
16 restricted to determining if a deviation from the clear language of the claims is specified”).
17 Neither the specification nor prosecution history provides a different meaning for “in response to”
18 or indicates Plaintiff used the term with a meaning other than its ordinary meaning. As Plaintiff
19 argues, “in response to,” in the context of the claims, means the join table definition must be
20 *responsive* to the query command. Defendants agree that “in response to” includes a causation
21 requirement, but Defendants’ construction consists of only a temporal requirement. (Defs.’ Opp’n
22 to Pl.’s Opening, at 20:22-24.) Under Defendants’ construction, it does not matter what the
23 resulting join table definition is, as long as the join table definition comes *after* the query
24 command.

25 In addition, the Court agrees with Plaintiff that Defendants’ construction limits the claim
26 by requiring the *entire* query command to be received before the system can begin processing the
27 query command. Nothing in the intrinsic evidence limits “in response to a query command” in this
28

1 manner. Indeed, the specification describes the use of “queues” and “streaming” for parallel query
2 processing, and indicates that data may be in the form of “data streams.” Col. 9, lines 10-12, Col.
3 14, lines 33-37.

4 Therefore, the Court finds “in response to a query command” is entitled to its ordinary
5 meaning.

6 5. *The “transmitting” terms*

7 The parties dispute the meaning of “transmitting said first join table to said second node”
8 and “transmitting said second join table to said first node.” Plaintiff asserts these terms are
9 entitled to their ordinary meaning, while Defendants contend they should be construed to mean
10 “transmitting the first join table only to the second node” and “transmitting the second join table
11 only to the first node.” (emphasis added). With the addition of the word “only,” Defendants’
12 construction limits the terms to mean only directional transmission of the join tables to a particular
13 node. Plaintiff contends this excludes broadcast transmission to all nodes or “point-to-multipoint”
14 transmission to multiple nodes (but less than all nodes).

15 The Court first looks to the language of the claims. The parties do not seek to construe the
16 meaning of “transmitting” or assert that “transmitting” has a specialized meaning. The claim
17 language provides that a join table is transmitted to another node, but does not limit the terms to
18 mean directional transmitting to one particular node. In addition, the specification describes
19 embodiments where the nodes are connected by a conventional Ethernet network. Col. 7, at 65-
20 Col. 8, at 14. Plaintiff’s expert Dr. Greenspun explains that “[t]he original Ethernet had the
21 characteristic that a packet put onto the network was visible to all of the computers that were on
22 the network. So . . . it might not be feasible to transmit something only to one node.” (Joint app.,
23 Ex. H at 100:17-23.)

24 Defendants primarily rely on the prosecution history, arguing their construction is based on
25 how the Examiner construed the terms during reexamination to distinguish the prior art.¹
26

27 ¹Defendants cite the Examiner’s statement during the reexamination:

28 The Third Party requester’s claim analysis asserts that Baru discloses a broadcast join

1 Defendants, however, do not point to any statements by Plaintiff during the reexamination which
2 constitute clear disavowal of claim scope, and Plaintiff is not precluded from taking a position
3 contrary to the Examiner’s statements. See Innova/Pure Water, Inc., 381 F.3d at 1124 (“It is well
4 settled, however, that it is the applicant, not the examiner, who must give up or disclaim subject
5 matter that would otherwise fall within the scope of the claims.”). In this case, the Court finds it
6 need not look further than the claim language and the specification to construe the “transmitting”
7 terms.

8 The Court declines to adopt Defendants’ construction. The “transmitting” terms are not
9 limited to only directional transmission of the join tables to a particular node. Thus, the terms are
10 entitled to their ordinary meaning.

11 7. *The “comparing” terms*

12 The parties dispute the meaning of the four “comparing” terms in claim 1:

13 comparing said first portion of said second database table with said first join table,
14 and

15 comparing said second portion of said second database table with said second join
table to generate a first intermediate results file;

16 comparing said first portion of said second database table with said second join
17 table, and

18 comparing said second portion of said second database table with said first join
table to generate a second intermediate results file

19 Plaintiff contends these terms are entitled to their ordinary meaning, while Defendants assert the

20 Court should construe these terms to mean:

21 comparing the first portion of the second database table stored on the first node
22 with the first join table on the second node

23 comparing the second portion of the second database table stored on the second
24 node with the second join table on the first node

25
26 including transmitting join tables between nodes, and thus, transmitting a first join
27 table to a second node and a second join table to a first node is disclosed. In contrary
28 to the Third Party requester’s analysis, the broadcast join does not directionally
transmit said first join table to said second node and said second join table to said first
node, but broadcast (i.e., transmit to all nodes) the selected rows of either table (i.e.,
join table) to all the nodes of the other tables.

1 generating a first intermediate results file based on the above two comparisons.

2 comparing the first portion of the second database table stored on the first node
3 with the second join table on the first node

4 comparing the second portion of the second database table stored on the second
5 node with the first join table on the second node

6 generating a second intermediate results file based on the above two comparisons

7 Defendants' construction adds the specific nodes on which the portions of the database tables and
8 join tables are located when comparisons take place. Plaintiff disagrees, arguing the specification
9 does not support such "time and place" limitations. The crux of this dispute is whether the
10 portions of the database tables are on *different* nodes from the join tables when they are being
11 compared (which Defendants refer to as "cross-nodal" comparison), or whether there is no
12 location limitation. In addition, Defendants' construction clarifies that each intermediate results
13 file is generated based on two separate comparisons. For example, Defendants combine the first
14 two comparing terms into one element and tie them to the recited step of "generat[ing] a first
15 intermediate results file."² Plaintiff raises no argument with respect to this aspect of Defendants'
16 proposed construction.

17 The Court agrees with Defendants that the claim language supports their proposed
18 construction. The "storing" steps of claim 1 recite that the different portions of the database tables
19 are stored on specific nodes:

20 storing a first portion of a first database table and a first portion of a second
21 database table on a first node, and

22 storing a second portion of a first database table and a second portion of a second
23 database table on a second node

24 Then, after the join table definitions are determined and the join tables are generated, the
25 "transmitting" step provides that the join tables are transmitted to specific nodes:

26 ²Defendants argue Plaintiff's position is that there are two separate elements:

27 (1) "comparing said first portion of said second database table with said first join
28 table," and

(2) "comparing said second portion of said second database table with said second join
table to generate a first intermediate results file."

1 transmitting said first join table to said second node, and transmitting said second
2 join table to said first node

3 The next steps are the “comparing” steps. The claim language above implies there is a location
4 limitation to the “comparing” steps.

5 The claim language also supports the conclusion that the steps listed in claim 1 must be
6 performed in sequential order, i.e., “storing” the portions of the database tables, followed in turn
7 by “determining” the join tables, “generating” the join tables, “transmitting” the join tables,
8 “comparing” portions of the database tables with the join tables, and “generating a final results
9 file.” The sequential nature of the claim steps is apparent from the plain meaning of the claim
10 language and nothing in the written description suggests otherwise. See Mantech Envtl. Corp. v.
11 Hudson Envtl. Servs., Inc., 152 F.3d 1368, 1376 (Fed. Cir. 1998); see also Interactive Gift Exp.,
12 Inc. v. Compuserve Inc., 256 F.3d 1323, 1342-43 (Fed. Cir. 2001) (the steps of a method may be
13 construed as reciting an order “when the method steps implicitly require that they be performed in
14 the order written”). The interrelationship of the steps and their functions support a finding that the
15 steps are performed in a certain order.

16 Defendants’ construction finds additional support in the Examiner’s statements during the
17 reexamination. The Examiner found the prior art was distinguishable based on location of the join
18 tables when they are compared:

19 The Patentee claims that the first portion of the second database table is compared with
20 the first join table, wherein said first portion of the second database table is stored in
21 the first node while said first join table is in the second node. However, Baru suggests
22 that the first portion of the second database table is stored in the first node while the
23 first join table is in the same first node when said first portion of the second database
24 table is compared with said first join table (See Baru, Directed Join on page 303).

25 (Joint app., Ex. D at 3:3-8.) The Examiner stated: “[i]n other words, comparing a join table in a
26 node with a portion of a database table in another node was not well-known in the art.” (Joint app.,
27 Ex. D at 4:28-31.) The Court may consider the Examiner’s statements as evidence of how one of
28 skill in the art understood the disputed claim term. Although unilateral statements by an examiner
do not give rise to a clear disavowal of claim scope by an applicant, “[s]tatements about a claim
term made by an examiner during prosecution of an application may be evidence of how one of

1 skill in the art understood the term at the time the application was filed.” Salazar v. Procter &
2 Gamble Co., 414 F.3d 1342, 1347 (Fed. Cir. 2005).

3 Relying on the testimony of his expert, Plaintiff contends Defendants’ construction would
4 not perform the claimed invention, because the portions of the database tables must be on the same
5 node as the join tables in order to compare them. Defendants’ construction, by contrast, requires
6 cross-nodal comparison. The Federal Circuit, however, has repeatedly held that courts may not
7 redraft claims to cure a drafting error made by the patentee, whether to make them operable or to
8 sustain their validity. See, e.g., Chef Am., Inc. v. Lamb-Weston, Inc., 358 F.3d 1371, 1373 (Fed.
9 Cir. 2004); Allen Eng’g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1349 (Fed. Cir. 2002).

10 Therefore, the Court adopts Defendants’ proposed construction, as set forth above, for the
11 “comparing” terms.

12 8. “File”

13 Plaintiff asserts that the term “file” is entitled to its ordinary meaning, but if the Court
14 deems construction necessary, “file” should be construed to mean “a complete, named collection
15 of information.” Plaintiff’s construction is based on the definition of “file” in the Microsoft
16 Computer Dictionary (Joint app., Ex. I.) , and is consistent with the use of the term in the claims
17 and specification. The Court, as well as Defendants, agree with Plaintiff’s construction. (Defs.’
18 Opening, at 12:4-5.) Therefore, the Court construes “file” to mean “a complete, named collection
19 of information.”

20 9. “Intermediate results file”

21 The parties dispute the meaning of the term “intermediate results file.” Defendants assert
22 “intermediate results file” should be construed to mean “a persistently saved file that includes a
23 partial set of records that respond to the query.” Plaintiff asserts the term is entitled to its ordinary
24 meaning, but if the Court deems construction necessary, “intermediate results file” should be
25 construed to mean “a file that includes one or more records or fields used to respond to the query.”
26

27 Because “intermediate results file” has no ordinary meaning, the Court must construe the
28 term. The first issue is whether an “intermediate results file” must be “persistently saved.” The

1 Court agrees with Plaintiff that nothing in the claims limits “intermediate results file” to a file that
2 is “persistently saved.” The term “file,” as construed in the previous section, does not require
3 persistent storage. In addition, the specification describes an embodiment in which “the memory
4 of the distributed database system 160 is volatile memory, which means that stored data is lost
5 when power is removed.” Col. 6, at 46-52. Plaintiff’s argument is also supported by the fact that
6 dependent claims 7, 20, and 21 expressly require “persistent storage devices.” See Enzo Biochem,
7 Inc. v. Applera Corp., 599 F.3d 1325, 1342 (Fed. Cir. 2010) (“[T]he presence of a dependent claim
8 that adds a particular limitation gives rise to a presumption that the limitation in question is not
9 present in the independent claim.”). Defendants rely on an example in the specification of one
10 phase of a database query command, which states the “intermediate results file is *saved* for
11 combining with the other intermediate results files.” Col. 12, lines 49-53 (emphasis added).
12 However, this does not indicate that an “intermediate results file” must be “*persistently saved*.”
13 Indeed, Defendants do not provide the Court with a definition for “persistently saved,” except to
14 argue it does not mean what Plaintiff contends it means - that the file must be able to survive a
15 power outage.

16 The second issue is whether an “intermediate results file” contains “one or more records or
17 fields” or “a partial set of records” in response to a query. The Court agrees with Plaintiff that
18 Defendants’ construction is too limiting. It is possible that an “intermediate results file” could
19 contain a complete set of records, rather than a “partial” set. Defendants’ construction does not
20 take this possibility into account.

21 Therefore, the Court adopts Plaintiff’s construction and construes “intermediate results
22 file” to mean “a file that includes one or more records or fields used to respond to the query.”

23 *10. “Final results file”*

24 The parties dispute the meaning of the term “final results file.” Defendants assert “final
25 results file” should be construed to mean “a persistently saved file that includes all the records
26 present in the first and second intermediate results files.” Plaintiff contends the term is entitled to
27 its ordinary meaning, but if the Court deems construction necessary, “final results file” should be
28

1 construed to mean “a file that includes one or more records or fields from the first intermediate
2 results file and one or more records from the second intermediate results file.”

3 Because “final results file” has no ordinary meaning, this term must be construed. As
4 discussed above, the claims and specification do not support a construction limiting a “final results
5 file” to a file that is “persistently saved.” The Court further finds neither the claims nor
6 specification limits a “final results file” to a file that includes “all the records” from the
7 intermediate results files. The specification explains that the “final results file” may go through
8 post-processing so that “only unique instances of the records satisfying the query” are returned.
9 Col. 18, lines 9-13. Therefore, the Court adopts Plaintiff’s construction and construes “final
10 results file” to mean “a file that includes one or more records or fields from the first intermediate
11 results file and one or more records from the second intermediate results file.”

12 **C. Claim 8**

13 Claim 8 is a system claim with means for performing the method steps of claim 1. Claim 8
14 recites:

15 A distributed database system for processing a database query command in which a
16 plurality of database tables are stored on a plurality of nodes, different portions of
17 at least one database table being stored on at least two of the nodes, the system
comprising:

18 means for storing a first portion of a first database table and a first portion
19 of a second database table on a first node, and

20 means for storing a second portion of a first database table and a second
21 portion of a second database table on a second node;

22 means for determining a join table definition in response to a query
23 command, said join table definition identifying a subset of said first
24 database table to include in executing said database query command;

25 means for generating a first join table from said first portion of said first
26 database table in accordance with said join table definition, and

27 means for generating a second join table from said second portion of said
28 first database table in accordance with said join table definition;

means for transmitting said first join table to said second node, and

means for transmitting said second join table to said first node;

1 means for comparing said first portion of said second database table with
2 said first join table, and

3 means for comparing said second portion of said second database table with
4 said second join table to generate a first intermediate results file;

5 means for comparing said first portion of said second database table with
6 said second join table, and

7 means for means for comparing said second portion of said second database
8 table with said first join table to generate a second intermediate results file;
9 and

10 means for generating a final results file from said first intermediate results
11 file and said second intermediate results file.

12 The parties dispute the construction of all the terms in claim 8. The parties agree they are
13 all means-plus-function terms governed by 35 U.S.C. § 112, ¶ 6. Title 35 U.S.C. § 112, ¶ 6
14 provides that an “element in a claim for a combination may be expressed as a means or step for
15 performing a specified function without the recital of structure, material, or acts in support
16 thereof.” Means-plus-function claims are construed to “cover the corresponding structure,
17 material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6.
18 Once the Court determines that a means-plus-function term is covered under § 112, ¶ 6, there is a
19 two-step process to construction. First, the Court must identify the claimed function. See
20 Intellectual Prop. Dev., Inc. v. UA-Columbia Cablevision of Westchester, Inc., 336 F.3d 1308,
21 1319 (Fed. Cir. 2003). Second, the Court must determine what structure disclosed in the
22 specification corresponds to the claimed function. Id. The claim limitation is then construed to
23 mean the corresponding structure as well as statutory “equivalents.” 35 U.S.C. § 112, ¶ 6.

24 Here, Defendants contend, and Plaintiff agreed at oral argument, that claim 8 involves a
25 computer-implemented invention governed by WMS Gaming Inc. v. International Game
26 Technology, 184 F.3d 1339 (Fed. Cir. 1999). In WMS Gaming, the Federal Circuit explained: “In
27 a means-plus-function claim in which the disclosed structure is a computer, or microprocessor,
28 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.; see
also Blackboard, Inc. v. Desire2Learn, Inc., 574 F.3d 1371, 1384 (Fed. Cir. 2009); Aristocrat

1 Techs. Australia Pty Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1331 (Fed. Cir. 2008). The structure
2 of this type of means-plus-function claim is limited by the algorithm disclosed in the specification.
3 WMS Gaming, 184 F.3d at 1348; see also Tehrani v. Hamilton Med. Inc., 331 F.3d 1355 (Fed.
4 Cir. 2003) (remanding to district court to determine what precise algorithm forms part of the
5 structure of the means-plus-function limitation). An “algorithm” is not limited to a formula of
6 mathematical symbols, but may also be steps, formula, or procedures expressed textually or shown
7 in a flow chart. In re Freeman, 573 F.2d 1237, 1245-46 (C.C.P.A. 1978) (citing cases).

8 *I. The “means for comparing” terms*

9 The parties dispute whether the specification discloses sufficient corresponding structure to
10 perform the function of the “means for comparing” terms:

11 means for comparing said first portion of said second database table with said first
12 join table, and

13 means for comparing said second portion of said second database table with said
14 second join table to generate a first intermediate results file;

15 means for comparing said first portion of said second database table with said
16 second join table, and

17 means for means for comparing said second portion of said second database table
18 with said first join table to generate a second intermediate results file

19 The parties agree the functions are to compare the recited portion of each database table with the
20 recited join table. The parties, however, dispute whether there is sufficient structure described in
21 the specification to perform these functions. Defendants assert there is not sufficient structure, and
22 therefore this claim is indefinite. Plaintiffs, on the other hand, argue there is sufficient structure,
23 and the Court should construe the corresponding structure as “a processor configured to implement
24 a join table compare and build module, and equivalents thereof.” Plaintiff contends the
25 specification describes the following algorithm for comparing a portion of a table with a join table:

26 The join table compare and build processing module 840 compares its portion of
27 the pivot table and the join tables of other Tstores for database table records that
28 match the search criteria specified in the query command. The join table compare
and build processing module 840 generates and sends the intermediate results file to
the primary controller 230 for gather processing to build the final results file as
described above. Col. 20, lines 17-28.

1 Plaintiff also points to the following language in the specification: “In some embodiments, the join
2 tables are sent via the interface processing module 614 of the shared memory router 610, over the
3 communication link 224 to the other nodes for performing the query command.” Col. 17, lines 53-
4 57.

5 Defendants contend the specification discloses “comparing” and “generating” intermediate
6 results files on a node-by-node basis in a single node system (Col. 11, lines 59-62; Col. 12, lines
7 46-56), but the only disclosed technique for processing queries in a multinode system simply states
8 “queries for multinode systems can be performed in a similar fashion” as the single node system.
9 Col. 13, lines 44-46. Defendants’ primary argument is that the specification does not disclose
10 “cross-nodal” comparisons where the portions of the database tables and join tables are on
11 different nodes when they are being compared. As the Court found with respect to the
12 “comparing” terms of claim 1, the portions of the database tables and join tables must be on
13 certain nodes when they are being compared. In light of this construction of the “comparing”
14 terms of claim 1, the specification does not convey specific structure to one of ordinary skill in the
15 art for the “comparing” terms of claim 8.

16 Therefore, the Court finds this term is invalid for indefiniteness. See In re Donaldson Co.,
17 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc) (explaining that adequate disclosure of the
18 corresponding structure is critical to the validity of a claim with a means-plus-function clause,
19 because without such structure the claim will be deemed invalid for indefiniteness); Blackboard,
20 Inc. v. Desire2Learn, Inc., 574 F.3d 1371, 1384 (Fed. Cir. 2009).

21 2. *The “means for storing” terms*

22 The parties dispute the “means for storing” terms:

23 means for storing a first portion of a first database table and a first portion of a
24 second database table on a first node, and

25 means for storing a second portion of a first database table and a second portion of
26 a second database table on a second node;

27 The parties agree the functions of these terms are “storing a first portion of a first database table
28 and a first portion of a second database table on a first node,” and “storing a second portion of a

1 first database table and a second portion of a second database table on a second node.” The Court
2 agrees and adopts this construction of the functions.

3 As to the corresponding structure, Defendants contend the structure is “a table distribution
4 processing module within a front end processor of a primary controller and the first node.”
5 Plaintiff asserts it is “a processor configured to implement the table distribution processing module
6 and memory such as RAM and/or hard disks drives, and equivalents thereof.” Plaintiff points to
7 the following steps disclosed in the specification which correspond to the table distribution
8 processing module:

9 The primary FEP 630 includes a table distribution processing module 624, which
10 receives database write commands from the database server interface processing
11 module 220 (see FIG. 2) via the communication link 214. For example, the
12 database write commands can include commands to add new records to the
13 database table or update data in an existing database table record. For new records
14 the tale distribution processing module 624 additionally determines the particular
15 node and/or Tstore to which the record is to be stored. Col. 15, lines 53-62.

16 The Court finds the portion of the specification cited above adequately discloses an
17 algorithm for storing portions of database tables on various nodes in satisfaction of WMS Gaming,
18 and this algorithm is “clearly linked” to the claimed function. See B. Braun Med., Inc. v. Abbott
19 Labs., 124 F.3d 1419, 1424 (Fed. Cir. 1997). Therefore, the Court adopts Plaintiff’s construction
20 of the corresponding structure. The structure is: “a processor configured to implement the table
21 distribution processing module and memory such as RAM and/or hard disks drives, and
22 equivalents thereof.” This structure is limited to the algorithm provided in Col. 15, lines 53-62.

23 *4. Remaining means-plus-function terms*

24 For the remaining means-plus-function terms, the parties agree on the functions, but
25 disagree as to the corresponding structures. Defendants propose as the corresponding structures
26 certain modules described in the specification and tied to the particular functions. Plaintiff, on the
27 other hand, proposes, “a processor configured to implement” those same modules.

28 As stated previously, the parties agree that claim 8 involves a computer-implemented
invention governed by WMS Gaming. Defendants contend that Plaintiff’s construction ties the
modules to a general purpose processor, and therefore is limited by the disclosed algorithms in the

1 specification. Defendants argue that because the specification fails to describe the algorithms to
2 perform the functions recited in claim 8, Plaintiff's proposed structures are insufficient. (Defs.'
3 Opp'n to Pl.'s Opening Brief, at 23:19-24.) The Court agrees with Defendants that the
4 specification does not convey specific structure to one of ordinary skill in the art for the remaining
5 means-plus-function terms. Plaintiff did not provide any analysis of the means-plus-function
6 terms in his briefing,³ and has not pointed to disclosed algorithms in satisfaction of WMS Gaming.

7 Therefore, the remaining means-plus-function claims are invalid for indefiniteness. See In
8 re Donaldson Co., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc); Blackboard, Inc. v.
9 Desire2Learn, Inc., 574 F.3d 1371, 1384 (Fed. Cir. 2009).

10 **D. Claim 9**

11 The dispute regarding claim 9 centers on whether it is a means-plus-function claim,
12 although it does not use the word "means." Claim 9 is dependent on claim 8, and recites:

13 The system of claim 8, wherein storing of said first portion of said first database
14 table and said first portion of said second database table on said first node
comprises storing in substantially equal portions.

15 Plaintiffs assert this term is not a means-plus-function claim, and is entitled to its ordinary
16 meaning. Defendants, on the other hand, contend it is a means-plus-function claim, and therefore,
17 the "storing" means are limited to the structures disclosed in the patent and its equivalents. 35
18 U.S.C. § 112 ¶ 6.

19 There is a rebuttable presumption that § 112, ¶ 6 does not apply to a phrase that does not
20 use the word "means." M.I.T. & Electronics For Imaging, Inc. v. Abacus Software, 462 F.3d
21 1344, 1353 (Fed. Cir. 2006). The presumption against mean-plus-function treatment may be
22 overcome "if it is shown that the claim term fails to recite sufficiently definite structure or else
23 recites function without reciting sufficient structure for performing that function." Id. Here, the
24 Court agrees with Defendants that claim 9 adds the further functional limitation of "storing in
25 substantially equal portions" to the "means for storing" element of claim 8, but does not recite
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27 ³At oral argument, Plaintiff only addressed the "means for comparing" and "means for storing"
28 terms.

1 sufficient structure for performing that function. Indeed, Plaintiff points to no recitation of
2 structure in the claim. Thus, claim 9 is a means-plus-function limitation controlled by 35 U.S.C. §
3 112 ¶ 6, and is limited to the structure described in the specification and equivalents thereof.

4 Plaintiff contends that if the Court construes claim 9 as a means-plus-function term, the
5 function is “storing a said first portion of said first database table and said first portion of said
6 second database table on said first node in substantially equal portions.” Defendants’ proposed
7 function is identical. Therefore, the Court adopts the parties’ construction of the function. As to
8 the corresponding structure, Plaintiff contends the Court should construe the structure as “a
9 processor configured to implement the table distribution processing module and memory such a
10 RAM and/or hard disks drive, and equivalents thereof.” Plaintiff, however, does not provide the
11 disclosed algorithm which forms part of the structure. Because Plaintiff’s construction does not
12 convey specific structure to one of ordinary skill in the art, the claim is invalid for indefiniteness.

13 See In re Donaldson Co., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc); Blackboard, Inc. v.
14 Desire2Learn, Inc., 574 F.3d 1371, 1384 (Fed. Cir. 2009).

15 **E. Claim 12**

16 The parties agree claim 12 is a means-plus-function claim governed by 35 U.S.C. § 112, ¶
17 6. Claim 12 is dependent on claim 8, and recites: “The system of claim 8, further comprising
18 means for executing post-processing operations on said final results file.” The parties agree the
19 function is “executing post-processing operations on said final results file.” However, the
20 corresponding structure is in dispute. Defendants contend the structure is a “final results file
21 post-processing module within a primary front end processor, wherein the module can scan the
22 final results file and remove duplicate entries, or order the entries in the final results file.” Plaintiff
23 asserts the structure is “a processor configured to implement a final results file post-processing
24 module, and equivalents thereof.” Plaintiff, however, does not provide the disclosed algorithm
25 which forms part of the structure. Because Plaintiff’s construction does not convey specific
26 structure to one of ordinary skill in the art, this claim is invalid for indefiniteness. See In re

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1 Donaldson Co., 16 F.3d 1189, 1195 (Fed. Cir. 1994) (en banc); Blackboard, Inc. v. Desire2Learn,
2 Inc., 574 F.3d 1371, 1384 (Fed. Cir. 2009).

3 **F. Claim 14**

4 Claim 14 is dependent on claim 8, and recites: “The system of claim 8, further comprising
5 means for storing said first and second database tables on a persistent storage device.” The parties
6 agree the function is “storing said first and second database tables on a persistent storage device.”
7 The Court also agrees, and adopts the parties’ construction of the function. The parties, however,
8 have a dispute about the corresponding structure. Plaintiff asserts the structure is “Hard disk
9 drives, tape drives, or other long-term storage devices, and equivalents thereof,” while Defendants
10 contend the structure is “Hard disk drives, tape drives, or other long-term storage devices.”

11 The Court adopts Defendants’ proposed construction: the corresponding structure is “Hard
12 disk drives, tape drives, or other long-term storage devices.”

13 **G. Claim 15**

14 Independent claim 15 is a method claim similar to claim 1, but involves four database
15 tables (two on one node, two on another node). Also unlike claim 1, these nodes store complete
16 database tables, rather than portions of database tables. Claim 15 recites:

17 A method of processing a query command in a distributed computing system in
18 which a plurality of database tables are stored on a plurality of nodes, the method
comprising:

19 storing a first database table and a second database table on a first node, and

20 storing a third database table and a fourth database table on a second node

21 determining a first join table definition in response to a query command,
22 said first join table definition identifying a subset of said first database table,
and

23 generating a second join table definition in response to said query
24 command, said second join table definition identifying a subset of said third
database table;

25 generating a first join table from said first database table in accordance with
26 said first join table definition, and

27 generating a second join table from said third database table in accordance
28 with said second join table definition;

1 comparing said second database table with said first join table to generate a
2 first intermediate results file;

3 comparing said fourth database table with said second join table to generate
4 a second intermediate results file; and

5 generating a final results file from said first intermediate results file and said
6 second intermediate results file.

7 *1. The “determining” and “generating” terms*

8 The parties dispute the meaning of the following terms:

9 determining a first join table definition in response to a query command, said first
10 join table definition identifying a subset of said first database table, and

11 generating a second join table definition in response to said query command, said
12 second join table definition identifying a subset of said third database table

13 Defendants contend this claim is indefinite, because the distinction between the function of
14 “determining . . . a first join table” and “generating . . . a second join table” is ambiguous. Plaintiff
15 asserts these phrases are not insolubly ambiguous, and should be given their ordinary meaning.

16 “Only claims ‘not amenable to construction’ or ‘insolubly ambiguous’ are indefinite.”
17 Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1250 (Fed. Cir. 2008) (“Because we
18 conclude that neither Halliburton’s proposed definition nor any other possible construction
19 resolves the ambiguity in the scope of the term ‘fragile gel’ we agree with the district court that
20 claims containing that term are indefinite.”) “Even if a claim term’s definition can be reduced to
21 words, the claim is still indefinite if a person of ordinary skill in the art cannot translate the
22 definition into meaningfully precise claim scope.” *Id.* at 1251.

23 The claim language supports Plaintiff’s position. The phrases “determining a first join
24 table definition in response to a query command” and “generating a second join table definition in
25 response to said query command” are substantially the same and are recited next to one another.
26 In addition, claim 1 recites a similar phrase, “determining a join table definition in response to a
27 query command, said join table definition identifying a subset of said first database table to
28 include in executing said database query command.” In light of the plain meaning of
“determining” and “generating” as well as the claim language, a person of ordinary skill in the art

1 would conclude these terms express similar concepts relating to the identification of a subset of a
2 database table to include in executing a query command. “[I]t is not unknown for different words
3 to be used to express similar concepts, even though it may be poor drafting practice.” Bancorp
4 Servs., L.L.C. v. Hartford Life Ins. Co., 359 F.3d 1367, 1373 (Fed. Cir. 2004).

5 Thus, the Court finds these terms are not insolubly ambiguous and are entitled to their
6 ordinary meaning.

7 2. *The “comparing” terms*

8 The parties dispute the meaning of the “comparing” terms of claim 15:

9 comparing said second database table with said first join table to generate a first
10 intermediate results file;

11 comparing said fourth database table with said second join table to generate a
12 second intermediate results file

12 Defendants’ construction specifies the node on which the second and fourth databases are stored,
13 and specify which comparisons the intermediate results files are based upon. Specifically,
14 Defendants assert the first term should be construed to mean “comparing the second database table
15 stored on the first node with said first join table” and “generating a first intermediate results file
16 based on the above.” As to the second term, Defendants assert it should be construed to mean
17 “comparing the fourth database table stored on the second node with said second join table” and
18 “generating a second intermediate results file based on the above comparison.” Plaintiff contends
19 these terms are entitled to their ordinary meaning.

20 The claim language supports Defendants’ construction that the second database table is
21 “stored on the first node,” and the fourth database table is “stored on the second node.” Earlier
22 limitations in claim 15 recite:

23 storing a first database table and a second database table on a first node, and

24 storing a third database table and a fourth database table on a second node

25 Thus, these limitations appear in the claim language itself. Finally, Plaintiff does not dispute
26 Defendants’ construction with regard to which comparisons the intermediate results files are based
27 upon. Therefore, the Court adopts Defendants’ construction as set forth above.
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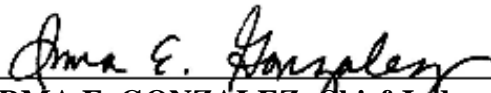
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CONCLUSION

For the reasons stated above, the Court adopts the constructions set forth in this Order for the disputed terms of the '874 Patent.

IT IS SO ORDERED.

DATED: October 4, 2010


IRMA E. GONZALEZ, Chief Judge
United States District Court