UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES – GENERAL

Case No.	SA CV16-01955 JAK (FFMx)	Date	July 13, 2017
Title	Power Analytics Corporation v. Operation Technology, Inc., et al.		

Present: The Honorable	JOHN A. KRONSTADT, UNITED STATES DISTRICT JUDGE

Andrea Keifer	Not Reported
Deputy Clerk	Court Reporter / Recorder
Attorneys Present for Plaintiffs:	Attorneys Present for Defendants:
Not Present	Not Present

Proceedings: **(IN CHAMBERS) ORDER RE DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT AS TO INVALIDITY (DKT. 161)**

I. Introduction

Power Analytics Corporation ("Plaintiff" or "PAC") alleges that Operation Technology, Inc. d/b/a ETAP, Osisoft LLC, and Schneider Electric USA, Inc. (collectively "Defendants") have infringed U.S. Patent No. 7,693,608 ("the '608 Patent"), US. Patent No. 7,729,808 ("the '808 Patent"), U.S. Patent No. 7,286,990 ("the '990 Patent"), and U.S. Patent 7,840,395 ("the '395 Patent") (collectively, "Asserted Patents"). On February 28, 2017, Defendants moved for partial summary judgment as to invalidity ("Motion"). Dkt. 161. On May 15, 2017, a hearing on the Motion was held and the matter was taken under submission. Dkt. 236. For the reasons stated in this Order, the Motion is **GRANTED**.

II. Background

The Asserted Patents are in the field of modeling electrical systems. They share portions of a common specification. Each also relates to computer modeling and focuses on computer simulation techniques with real-time system monitoring and prediction of electrical system performance. *See* '608 Patent at 1:25-29.

The specifications of the Asserted Patents acknowledge that it was already known that models could be used to simulate and predict the performance of monitored electrical systems. '608 Patent at 1:31-50 (systems models have been used for simulation and "predictive failure analysis"), 8:21-24 ("a variety of conventional virtual model applications can be used for creating a virtual system model, so that a wide variety of systems and system parameters can be modeled."). These electrical system models are information that can be stored in a database. *Id*. at 8:20-21, Fig. 1 (item 126).

The Asserted Patents purport to introduce the idea of comparing live*, i.e.*, "real-time," data to predicted data. This permits an assessment of the system's health and performance. Depending on the level of deviation that is determined, it may also permit an update to the prediction model. *See, e.g.*, '608 Patent at 1:41-2:2, 2:39-59, 6:48-7:5, 7:24-34, 7:49-60, 8:9-19. According to a preferred embodiment, the real-time data from sensors is collected, processed, and compared to the model's predictors for those sensors. *Id*. at 3:1-3, 6:42-58. Any deviation between live and predicted values is evaluated and

potentially acted upon: "[a] divergence between the real-time sensor output values and the predicted values generate either an alarm condition for the values in question and/or a calibration request that is sent to the calibration engine 134." *Id*. at 8:62-65.

An alarm condition communicates the health and performance of the monitored system. *Id*. at 10:31-35. In response to some deviations, a "calibration request" is generated to seek updating of the information in the model: "Once the calibration [request] is generated by the analytics engine 118, the various operating parameters or conditions of model(s) 206 can be updated or adjusted to reflect the actual facility configuration." *Id*. at 8:9-12. Figure 1 of the '608 Patent illustrates an embodiment of the system for predictive analysis of the performance of a monitored system:

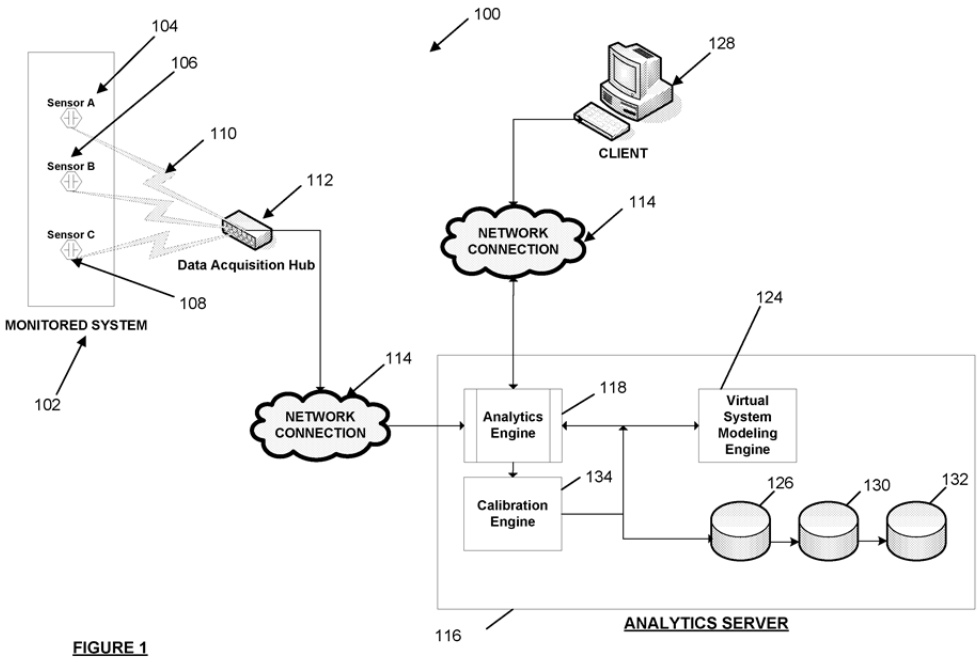

FIGURE 1

III. Analysis

A. Legal Standards

1. Summary Judgment

Summary judgment is appropriate where the record shows that "there is no genuine issue as to any material fact and . . . the moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56 (a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322–23 (1986). Material facts are those necessary to the proof or defense of a claim, as determined by reference to substantive law. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A factual issue is genuine "if the evidence is such that a reasonable jury could

return a verdict for the nonmoving party." *Id*.

In deciding a motion for summary judgment, "[t]he evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor." *Id*. at 269. The burden initially falls on the moving party to show an absence of a genuine issue of material fact or to show that the non-moving party will be unable to make a sufficient showing on an essential element of its case for which it has the burden of proof. *Celotex*, 477 U.S. at 322–23. Only if the moving party meets its burden must the non-moving party produce evidence to rebut the moving party's claim and create a genuine issue of material fact. *Id*. If the non-moving party meets this burden, then the motion will be denied. *Nissan Fire & Marine Ins. Co. v. Fritz Co., Inc.*, 210 F.3d 1099, 1103 (9th Cir. 2000).

2. Section 101 Analytical Framework

"Section 101 defines the subject matter that may be patented under the Patent Act." *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). Section 101 provides: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. "Section 101 thus specifies four independent categories of inventions or discoveries that are eligible for patent protection: processes, machines, manufactures, and compositions of matter." *Bilski*, 561 U.S. at 601.

Although acknowledging that "[i]n choosing such expansive terms . . . Congress plainly contemplated that the patent laws would be given wide scope," the Supreme Court has identified three exceptions to Section 101: "laws of nature, physical phenomena, and abstract ideas." *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09 (1980). Although these exceptions are not required by the statutory text, they are consistent with the idea that certain discoveries "are part of the storehouse of knowledge of all men" and are "free to all men and reserved exclusively to none." *Funk Bros. Seed Co. v. Kalo Inoculant Co.*, 333 U.S. 127, 130 (1948). Consistent with these factors is that "the concern that drives this exclusionary principle [is] one of pre-emption." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (citation omitted). Consequently, the Supreme Court has required that "[i]f there is to be invention from such a discovery, it must come from the application of the law of nature to a new and useful end." *Funk Bros*., 333 U.S. at 130. These principles apply with equal force to product and process claims. *Gottschalk v. Benson*, 409 U.S. 63, 67-68 (1972).

Alice is the most recent statement by the Supreme Court on how these principles are applied. *Alice* expanded on the two-step approach for resolving Section 101 issues first set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 77 (2012). In the first step, a court must "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 134 S. Ct. at 2355 (citing *Mayo*, 566 U.S. at 77). If this test is satisfied, then in the second step the court must ask "[w]hat else is there in the claims." *Id.* This requires consideration of "the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (citing *Mayo*, 566 U.S. at 78–79). In applying this second step, a court must "search for an 'inventive concept'—*i.e.*, an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" *Id.* (citing *Mayo*, 566 U.S. at 72–73).

B. Application

1. *Alice* Step One – Whether the Asserted Claims are Directed to a Patent-Ineligible Concept

The step-one inquiry determines whether the claims "focus on a specific means or method that improves the relevant technology" or are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). Plaintiff has asserted 138 claims from the four Asserted Patents. Defendants have chosen claim 1 of the '608 Patent as representative.[1] Claim 1 reads:

> 1. A system for filtering and interpreting real-time sensory data from an electrical system, comprising:
>
> a data acquisition component communicatively connected to a sensor configured to acquire real-time data output from the electrical system;
>
> a power analytics server communicatively connected to the data acquisition components, comprising,
>
> a virtual system modeling engine configured to generate predicted data output for the electrical system utilizing a virtual system model of the electrical system,
>
> an analytics engine configured to monitor the real-time data output and the predicted data output of the electrical system, the analytics engine further configured to initiate a calibration and synchronization operation to update the virtual system model when a difference between the real-time data output and the predicted data output exceeds a threshold, and
>
> a decision engine configured to compare the real-time data output against the predicted data output to filter out and interpret indicia of electrical system health and performance; and
>
> a client terminal communicatively connected to the power analytics server and configured to display the filtered and interpreted indicia.

'608 Patent, claim 1.

The other asserted claims vary. However, each recites the idea of evaluating and reacting to prediction deviations along with functionally recited "engines" and "components." Each also refers to ancillary steps such as collecting and evaluating the data and displaying the results of the evaluation.

[1] Although Plaintiff has not conceded that claim 1 is representative of the remaining claims, it has not shown how the other independent claims differ materially from claim 1. Moreover, although Plaintiff has referred in passing to several of the dependent claims, it presents no substantive arguments as to their separate patentability.

The characterizations of the asserted claims by each side reflect the idea of evaluating and reacting to prediction deviations:

- Plaintiff: "compare predicted calculated values generated by the virtual system model against real-time data received from the sensors, updating the virtual system model when the difference exceeds a threshold, to ensure that the virtual system model reflects the system's real-time operation." Dkt. 181 at 3.

- Defendants: "the idea of comparing live (real-time) data to predicted data to interpret a monitored system's health and performance (*e.g.*, identify an alarm condition) and, depending on the level of deviation, to update the prediction model (*e.g.*, by 'calibration' or 'calibration and synchronization.')." Dkt. 161 at 1.

Despite their length and number, the asserted claims focus on gathering information, *e.g.*, real-time and predicted data values, and analyzing and updating a model with that information, *e.g.*, comparing the gathered data and evaluating the prediction deviations to update the model. This type of information gathering and analysis has been addressed by the Federal Circuit. It has held that it falls into a class of claims directed to a patent-ineligible concept. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) ("we have treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.").

Further, the claims recite the idea as a function or result, rather than a particular way of performing that function or achieving that result. This is another indicator of abstractness. *Cf. Elec. Power Grp.*, 830 F.3d at 1351 ("The claims, defining a desirable information-based result and not limited to inventive means of achieving the result, fail under § 101."); *Affinity Labs of Texas, LLC v. Amazon.com, Inc.*, 838 F.3d 1266, 1269 (Fed. Cir. 2016) ("The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea."). For example, claim 1 of the '608 Patent recites that "an analytics engine" is "configured to initiate a calibration and synchronization operation to update the virtual system model when a difference between the real-time data output and the predicted data output exceeds a threshold." The language focuses on the result rather than how the operation is achieved. Similarly, claim 1 recites that "a decision engine" is "configured to compare the real-time data output against the predicted data output to filter out and interpret indicia of electrical system health and performance." Again, it does not specify how the engine is configured. None of the claims recites a particular structure for how to compare the real-time and predicted values, how to pick the threshold values or how to update the virtual model.

Plaintiff argues that the inventions at issue provide a concrete solution to problems that burdened the electrical systems industry for decades, "namely, the inability to accurately analyze, predict and model the operations of an electrical system because the system model was based upon a stale, historical snapshot, taken at a single point in time." Dkt. 181 at 9-10. Specifically, Plaintiff argues that the Asserted Patents solved the problems in the field in a specific way: "the creation of a virtual system model that is kept up to date through the use of the (1) threshold; (2) calibration and (3) synchronization elements." *Id*. at 13. Plaintiff further notes that the PTO identified these elements as being especially novel, and determined that the prior art did not suggest or disclose these key elements. (*Id*. at 6, 13-14.)

Plaintiff's arguments conflate patent eligibility (35 U.S.C. § 101) with anticipation (§ 102) and obviousness

(§ 103). Novelty of a claim's abstract idea does not defeat invalidity under § 101. New abstract ideas are no more valid than old ones: abstract ideas are ineligible for patenting even if they are "novel and useful," *Parker v. Flook*, 437 U.S. 584, 588, 591 (1978), and "narrow and specific," *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 88 (2012). *See also, Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) ("[A] claim for a *new* abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty.") (Emphasis in original). Indeed, Plaintiff acknowledges that "a Section 101 analysis is not the same as a prior art invalidity analysis." Dkt. 181 at 7.

For claims implemented on a computer, the Federal Circuit has determined that it is "relevant to ask whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea." *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016). Here, the Asserted Patents purport to solve a data problem, *i.e.,* a discrepancy between the real-time and data predicted using a model, not a computer problem. Neither the problem nor the solution is rooted in computer technology. The purported solution offered by the claims to the problem of outdated information is to update the model so that it fits more accurately within the real-world data. There is nothing in the claim to suggest that, once the models have been updated, the computer system will be any more efficient. Instead, like the patents in *Electric Power Group*, the Asserted Patents claim a purported advance in uses for existing computer capabilities, not new or improved computer capabilities. *See Elec. Power Grp.*, 830 F.3d at 1354. "The focus of the claims is not on such an improvement in computers as tools, but on certain independently abstract ideas that use computers as tools." *Id*.

2. *Alice* Step Two – Whether the Asserted Claims Included an "Inventive Concept"

As noted, the second inquiry of the *Alice* test is whether the claims found to be directed to an abstract idea contain any inventive concept to transform the abstract idea into a patent-eligible subject matter. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014). To satisfy this prong, the claims must include additional features that are significantly beyond "well-understood, routine, conventional activity" or a simple "instruction to implement or apply the abstract idea on a computer." *Id*. (quoting *Mayo*, 566 U.S. at 79.); *Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016).

Routine, conventional, or generic elements or combinations of elements do not satisfy the second step. *Alice*, 134 S. Ct. at 2359 (claim steps requiring "electronic recordkeeping" and "use of a computer to obtain data, adjust account balances, and issue automated instructions" do "no more than require a generic computer to perform generic computer functions."). Neither does "claiming the improved speed or efficiency inherent with applying the abstract idea on a computer provide a sufficient inventive concept." *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015).

In *Electric Power Group*, the court noted that a field-of-use restriction, "limiting the claims to the particular technological environment of power-grid monitoring," is insufficient. 830 F.3d at 1354. The same rule applies to collecting and analyzing specific "types of information" from specific types of "information sources" (including "real time measurements") because "merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas." *Id*. at 1355.

As in *Electric Power Group*, the field-of-use restrictions in the asserted claims, which limits them to the technological environment of electrical system monitoring, is insufficient to save them. The result is the same as to the recitation in the claims of the following: (i) various types of information content gathered and used, *e.g.*, "real-time data", "predicted data," "virtual system model," contingency event," "environmental data," "real time domain model data", "real-time system reliability data, and "real time model"; and (ii) various sources of such information, *e.g.,* "sensors," "data acquisition component," "virtual system modeling database". None of these steps differentiates a process from ordinary mental ones.

Similar to the "displaying" steps in the invalidated claims in *Electric Power Group*, many of the asserted claims recite displaying, reporting, or otherwise outputting various results of the analysis and evaluation, *e.g.,* "display" an alarm condition, "forecast an aspect," generate a "warning message," report arc-flash-event analyses, generate a "predictive analysis report," "generate an "operational stability" report, and generate "a report that summarizes the results of the simulation." Dkt. 161 at 22. However, reporting analysis results, without more, is more appropriately characterized as an insignificant "post-solution activity" that does not support the invention having an inventive concept. *See Flook*, 437 U.S. at 590.

A few claims recite a "machine learning engine" ('608 claims 16-17; '395 claims 1, 3), but the patents describe this in functional terms, *e.g.,* '608 Patent, Fig. 22; 37:35-63, without purporting to add any particular inventive implementation. *Cf. In re TLI Commc'ns LLC Patent Litig.*, 823 F.3d 607, 613-15 (Fed. Cir. 2016) (in view of the patent's "abstract functional descriptions" of the claims' "telephone unit," "server," "image analysis unit," and "control unit," they "fail to add an inventive concept sufficient to bring the abstract idea into the realm of patentability.").

Plaintiff argues that the Asserted Patents are similar to the claims that were at issue in *Diamond v. Diehr* and should be sustained on that basis. Dkt. 181 at 17. In *Diehr*, the patents recited a process of curing synthetic rubber that ensured the product of "molded articles which are properly cured." *Diamond v. Diehr*, 450 U.S.175, 177 (1980). The claim used a "well-known" mathematical equation, but it applied it in a process designed to solve a technological problem in "conventional industry practice." *Id*. at 177, 178. The invention in *Diehr* used a "thermocouple" to record constant temperature measurements inside the rubber mold. The measurements were fed into a computer, which repeatedly recalculated the remaining cure time by using the mathematical equation. *Id*. at 178-179. These additional steps "transformed the process into an inventive application of the formula." *Mayo*, 566 U.S. at 81.

The claims in *Diehr* recited a particular physical transformation of a particular article, *i.e.*, "raw, uncured synthetic rubber, into a different state or thing." 450 U.S. at 184; *see Bilski v. Kappos*, 561 U.S. at 604 ("the machine-or-transformation test is a useful and important clue, an investigative tool, for determining" eligibility under § 101). Also, the *Diehr* claims recited an unconventional physical solution to a physical problem in the prior art and used novel physical steps to measure temperature precisely inside the mold. *See Mayo*, 566 U.S. at 80–81. By contrast, the claims in the Asserted Patents focus on the idea of comparing live data to predicted data and updating a prediction model. They are directed to data manipulation rather than a physical transformation of an article.

The asserted claims are more like those in *Parker v. Flook*, 437 U.S. 584 (1978). There, the claimed idea

was to collect data from a monitored industrial system, and analyze and compare it with other data. Depending on the outcome of that analysis, the claimed idea would update an alarm limit responsible for identifying alarm conditions to users. *Id*. at 596-98. Like the *Flook* claims, the claims here do not recite either unconventional physical elements or a functional relationship between abstract and physical elements. Rather, the "threshold, calibration, and synchronization" elements are abstract, generic steps that describe desired functions or outcomes, but do not, individually or in combination, constitute "inventive concepts."

For these reasons, none of the claim elements identified by Plaintiff exceeds the abstract idea of evaluating and reacting to prediction deviations. Therefore, the Asserted Patents are ineligible under § 101.

IV. Conclusion

For the reasons stated in this Order, the Motion is **GRANTED.**

IT IS SO ORDERED.

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