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EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAVI MAITHEL, JOE ZHOU, ADAM MCKEE, YIN ZHOU,
HOWARD LEE, and TRENT McCONAGHY

Appeal 2015-007878
Application 11/052,883
Technology Center 3600

Before BIBHU R. MOHANTY, KENNETH G. SCHOPFER, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants seek our review under 35 U.S.C. § 134 of the final rejection of claims 1–51 and 53–67 which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF THE DECISION

We AFFIRM.

THE INVENTION

The Appellants' claimed invention is directed to scheduling software (Spec. 1, line 3). Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method of building an optimized schedule to complete at least one project, the schedule being optimized for at least one business goal, said method comprising:
 - breaking down said at least one project into a plurality of tasks;
 - in respect of each task;
 - defining fixed costs associated with the task;
 - defining task constraints associated with the task;
 - defining at least one resource configured for completing the task and in respect of the resource:
 - defining the time to complete the task using the at least one resource;
 - defining costs associated with the at least one resource;
 - and defining resource constraints associated with the at least one resource;
 - defining at least two objectively determinable business goals having the same units of measure, at least one of the plurality of tasks being measureable in the same unit of measure as both of the objectively determinable business goals, and the task being objectively determinable;
 - generating, via at least one processor of a computer, a plurality of alternate schedules, each alternate schedule being feasible based on any task constraints and any resource constraints to complete the at least one project, the alternate schedules having different completion times;
 - utilizing the computer to determine an optimization score for each alternate schedule based on the at least two business goals; and

utilizing the computer to determine the alternate schedule with the best optimization score, being the optimized schedule; and

returning the optimized schedule including an exact number of resources of each type to be deployed over the length of the project and when the resources should be deployed during the project and exactly what tasks should be assigned to such resources and when the tasks should be assigned to the resources.

THE REJECTIONS

The following rejections are before us for review:

1. Claims 1–51 and 53–67 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.
2. Claims 1–51 and 53–67 are rejected under 35 U.S.C. § 103(a) as being directed to Brucker et al. *Resource Constrained Project Scheduling: Notation, classification, models methods*, European Journal of Operational Research 112, pp. 3–41 (1999) and Coffin et al. *Multiple Criteria R&D Project Selection and Scheduling Using Fuzzy Logic*, Computers Ops Res. Vol. 23, No. 3, pp. 207–220 (1996).

FINDINGS OF FACT

We have determined that the findings of fact in the Analysis section below are supported at least by a preponderance of the evidence.¹

¹ See *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

ANALYSIS

Rejection under 35 U.S.C. § 101

The Appellants argue that the rejection of claim 1 is improper (Reply Br. 7–14). The Appellants argue that the claim is not directed to an abstract idea, and that regardless that the claims are directed to “significantly more” than any abstract idea (Reply Br. 12–14). The Appellants also argue that the machine-or-transformation test is still a “useful and important clue” (Reply Br. 8).

In contrast, the Examiner has determined that the rejection is proper (Ans. 4). The Examiner presents this rejection as a new ground of rejection in the Answer (Ans. 4).

We agree with the Examiner. The machine-or-transformation test is a useful and important clue but “is not the sole test for deciding whether an invention is patent-eligible” *Bilski v. Kappos*, 561 U. S. 593 (2010) slip at page 8. Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “laws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

In judging whether claim 1 falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)). In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea. If so, we then

consider the elements of the 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 of the abstract idea. *Id.* This is a search for an “inventive concept” an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.* The Court also stated that “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention”. *Id.* at 2358.

Here, we find that the claim is directed to the concept of building an optimized schedule to complete a project based on business goals. This is a method of organizing human activities and is an abstract idea beyond the scope of § 101.

We next consider whether additional elements of the claim, both individually and as an ordered combination, transform the nature of the claim into a patent-eligible application of the abstract idea, e.g., whether the claim does more than simply instruct the practitioner to implement the abstract idea using generic computer components. We conclude that it does not.

Considering each of the claim elements in turn, the function performed by the computer system at each step of the process is purely conventional. Each step of the claimed method does no more than require a generic computer to perform a generic computer function.

Here, the claim is not rooted in technology, but rather in the abstract concept of building an optimized schedule to complete a project based on business goals using generic computer components in a conventional manner.

For this reason, the rejection of claim 1 is sustained. The Appellants have not argued the remaining claims separately and the rejection of these claims is sustained as well.

Rejection under 35 U.S.C. § 103(a)

The Appellants argue that the rejection of claim 1 is improper because the cited prior art fails to disclose the claim limitation requiring:

defining at least two objectively determinable business goals having the same units of measure, at least one of the plurality of tasks being measureable in the same unit of measure as both of the objectively determinable business goals, and the task being objectively determinable.

(App. Br. 8).

In contrast, the Examiner has determined that the cited claim limitation is found in Brucker at page 6, column 1, page 7, column 1; and Coffin at page 208, page 210, and page 211 (paras. 2–4), page 212, Figs. 1, 2 (Final Rej. 8–10, Ans. 5–10).

We agree with the Appellants. Here the citations to Brucker and Coffin as listed above fail to disclose the argued claim limitation. For example, Coffin at page 212 does disclose two R& D portfolios with three selected goals which are related to future profits, the average probability of success for the portfolio, and overall time to complete the portfolio. Here however, the units of measure (profit, probability of success, and time) are not the same for the “plurality of tasks”. For this reason, the rejection of claim 1 and its dependent claims is not sustained. Claim 36 contains a similar limitation and the rejection of this claim and its dependent claims is not sustained for the same reasons given above as well.

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CONCLUSIONS OF LAW

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1–51 and 53–67 under 35 U.S.C. § 101.

We conclude that Appellants have shown that the Examiner erred in rejecting claims 1–51 and 53–67 under 35 U.S.C. § 103(a) as listed in the Rejections section above.

DECISION

The Examiner’s rejection of claims 1–51 and 53–67 is sustained.

AFFIRMED