UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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Ex parte EDWARD G. GREMS III,
JAMES E. HENZE, JONATHAN A. BIXBY,
MARK ROBERTS, and THOMAS MANN
————————

Appeal 2012-008495
Application 11/428,016[1]
Technology Center 2100
————————

Before LEE E. BARRETT, KEN B. BARRETT, and
CARL W. WHITEHEAD JR., *Administrative Patent Judges*.

LEE E. BARRETT, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final
rejection of claims 1, 2, 6–14, and 17–21. Claims 3–5, 15, and 16 have been
canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse but enter new grounds of rejection.

THE INVENTION

The invention relates to a computer method, apparatus, and system to
support an Engineering Review Process (ERP) for an enterprise program.
"The Engineering Review Process (ERP) at an enterprise, such as a

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[1] Titled: "Engineering Review Information System."

government agency can involve the coordination of Engineering Review Board (ERB) members, and requires complete and careful documentation of engineering issues, in progress and resolved." Spec. ¶ 9.

"Conventionally, an enterprise managed the ERP manually using spreadsheets to identify and input a problem and assign personnel to the problem. Cross-referencing data concerning identical problems and causes in different systems or different problems within a single system or both was also done manually." Spec. ¶ 3.

The Specification describes a database entity called an "engineering item" (EI) to document problems. As shown in Fig. 3, an EI is described by six attributes, which are described in Table 1. Spec. ¶¶ 43–44. The EI describes an engineering system problem (block 306) using, *inter alia*, classifications 324 and keywords 326; e.g., Fig. 7A shows a user interface for entering classifications 324 and keywords 326. The EI may include identification of an engineering team (blocks within dashed block 334) of users having assignable roles; e.g., in Fig. 7C, the engineer 308 initiating the EI identifies himself/herself as the engineering team 334, and can further identify the engineering team 334 by inputting the cognizant engineer 328, system engineer 330, the chief engineer 332, or the supporting engineer(s) 312. *Id.* at ¶ 58. An action item (AI) 302 is a required action given by a review board (RB) to the engineering team 334. *Id.* at ¶ 48. The computer processor supports managing investigation of the problem in the EI by a RB. The stages of creating, reviewing, and closing an EI are shown in Fig. 5

Independent claim 1 is as follows:

1. A method, comprising:

using a computer processor

defining, for an enterprise engineering program, database entities that define management of engineering system problems in a plurality of engineering systems of the enterprise engineering program, the database entities including an engineering item that:

disciplinarily describes and standardizes an engineering system problem, which is as a result of an inspection, a test, and/or a review of a thing, hardware-component and/or software-component for an engineering system of the enterprise engineering program and identified with a discrepancy from and/or observation in behavior of a specified requirement, by defining based upon a policy of the enterprise engineering program having the plurality of engineering systems and traceability attributes, at the enterprise engineering program level across the plurality of engineering systems, a vocabulary and an environment of possible engineering system problems using classifications and keywords,

includes as an engineering team one or more users and assignable roles to the users for investigation of the engineering system problem described in the engineering item, and

includes an action item in support of investigation of the engineering system problem; and

supporting managing by a review board investigation of the engineering system problem described in the engineering item at the enterprise engineering program level across the plurality of engineering systems of the enterprise engineering program.

THE PRIOR ART

Giel et al. (Giel)   US 2002/0169734 A1   Nov. 14, 2002
Lubrecht et al. (Lubrecht)   US 2006/0161879 A1   July 20, 2006
                                                                        (filed Jan. 18, 2005)

THE REJECTION

Claims 1, 2, 6–14, and 17–21 are rejected under 35 U.S.C. § 103(a) as unpatentable over Giel in view of Lubrecht.

ANALYSIS

Although Appellants argue that the Examiner erred in finding that the combination of Giel and Lubrecht disclose several limitations, the dispositive issue is whether Giel teaches an "engineering item" database entity that "*disciplinarily describes and standardizes an engineering system problem*, . . . for an engineering system of the enterprise engineering program . . . *by defining* based upon a policy of the enterprise engineering program having the plurality of engineering systems and traceability attributes, at the enterprise engineering program level across the plurality of engineering systems, *a vocabulary and an environment of possible engineering system problems using classifications and keywords*."[2] For

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[2] The omitted limitations indicated by ellipses defining a "problem" are not contested. Giel describes that "[a]n issue is any matter that may need to be investigated by or reported to the management of an enterprise." Giel, ¶ 74. Issues are identified by analyzing configuration information using analyzers developed or written by experts. *Id.* at ¶ 82. Therefore, we agree with the Examiner that the issues in the report in Giel correspond to "an engineering system problem, which is as a result of an inspection, a test, and/or a review of a thing, hardware-component and/or software-component for an engineering system of the enterprise engineering program and identified

example, Appellants' Figs. 3 and 7 show a problem description in an EI defined by classification 324 and keywords 326; *see also* Spec., ¶¶ 56, 68, and 70. Appellants argue that the paragraphs in Giel relied upon by the Examiner in the Final Office Action describe generating a report using an issues database and report templates but are silent with on how the issues in the issue databases or the report template are structured. Br. 12–14.

We look for how Giel teaches that an issue or report (an "engineering item") "describes and standardizes an engineering system problem . . . by defining . . . a vocabulary and an environment of possible engineering system problems using classifications and keywords," as claimed.

We have reviewed the paragraphs of Giel cited by the Examiner, in particular the description of template reports in paragraphs 190–200, but also the whole of the reference. The report templates use rules and language written by experts to analyze issues and generate different kinds of reports directed to different audiences. *See, e.g.*, Giel, ¶¶ 102, 103, 197–200. However, we do not find any description of how Giel teaches that an issue or report (an "engineering item") "describes and standardizes an engineering system problem . . . by defining . . . a vocabulary and an environment of possible engineering system problems using classifications and keywords" as claimed. The Examiner states that the template reports "create reports in a uniform manner." Ans. 25. We agree, but uniformity does not necessarily mean that the template reports written by experts are written as "using classifications and keywords" or an equivalent. The Lubrecht reference is not relied upon for this limitation. Accordingly, the rejection of independent

with a discrepancy from and/or observation in behavior of a specified requirement."

claim 1 and dependent claims 2, 6–12, and 19 is reversed. Independent claims 13 and 18 contain corresponding limitations and the rejection of claims 13 and 18 and dependent claims 14, 17, 20, and 21 is reversed.

NEW GROUNDS OF REJECTION

35 U.S.C. § 112, second paragraph

Claims 1, 2, 6–14, and 17–21 are rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

First, it is not known what is meant by "traceability attributes" in independent claims 1, 13, and 18 because the term does not appear in the Specification and does not have a well-accepted meaning in the art. We will not assume that "traceability" is synonymous with "tracking."

Second, it is not clear what is meant by "defining . . . a vocabulary and an environment of possible engineering system problems using classifications and keywords" "based upon . . . traceability attributes." How are "traceability attributes" related to a "vocabulary"?

Third, it is not clear if or how the step of "using a computer processor . . . supporting managing by a review board" in the independent claims limits the claims. It does not recite any positive act of managing using the engineering item and seems to require no more than the computer processor being capable of "supporting managing" in some undefined way; it is akin to a statement of intended use which does not limit the claims.

35 U.S.C. § 101

Claims 1, 2, 6–14, and 17–21 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter as an abstract idea without significantly more. The most recent Office guidance on § 101 is found in

"2014 Interim Guidance on Patent Subject Matter Eligibility,"
79 Fed. reg. 74618 (Dec. 16, 2014), which supplements the "Preliminary
Examination Instructions in view of the Supreme Court Decision in *Alice
Corporation Pty. Ltd. v. CLS Bank International, et al.*," Memorandum to
the Examining Corps, June 25, 2014. *See also DDR Holdings, LLC v.
Hotels.com, L.P.* (Fed. Cir. Dec. 5, 2014) and *Content Extraction v. Wells
Fargo Bank* (Fed. Cir. Dec. 23, 2014). Assuming that a claim nominally
falls within one of the statutory categories of machine, manufacture, process,
or composition of matter, the first step is to determine whether the claim is
directed to a law of nature, a natural phenomenon, or an abstract idea
(judicial exceptions). If so, the second step is to determine whether any
element, or combination of elements, in the claim is sufficient to ensure that
the claim amounts to significantly more than the judicial exception.

As with all patentability determinations, the determination of patent
eligibility under § 101 is based on the claim language. Claim 1 recites a
method using a computer processor (1) defining database entities including
an "engineering item" that (a) describes and standardizes an engineering
system problem, (b) includes an engineering team for investigation of the
problem, and (c) includes an action item; and (2) supporting managing by a
review board. Thus, the steps of (1) defining database entities and
(2) supporting managing by a review board are performed using a computer
processor.

Method claim 1 contains the abstract idea of representing an
engineering problem as a database entity called an "engineering item,"
which includes the information of (a) a description of the engineering
problem, (b) an engineering team, and (c) an action item. A database entity

per se is an abstract idea comprising nothing more than an abstract collection of information with no physical form and does not fit within any statutory category. A database entity is similar to a data structure except that it has no specific arrangement or structure of the data. "Data in its ethereal, non-physical form is simply information that does not fall under any of the categories of eligible subject matter under section 101." *Digitech Image Techs., LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014). Likewise, data structures in ethereal, non-physical form are non-statutory subject matter. *See, e.g., In re Warmerdam*, 33 F.3d 1354, 1361–62, (Fed. Cir. 1994) (bubble hierarchy data structure of claim 6 not within any statutory category). For purposes of § 101 analysis, whether the data is novel and nonobvious is irrelevant.

The step of "supporting managing by a review board" does not recite any positive steps of managing using the engineering item and requires no more than the abstract idea that the computer processor is capable of "supporting managing" in some undefined way. It is viewed as similar to a statement of intended use of the computer processor.

Under the second step of the § 101 analysis, we conclude that claim 1 does not include additional elements that are sufficient to amount to significantly more than the judicial exception because it merely recites using a computer processor defining a database entity and supporting managing by a review board. Using a computer processor defining a database entity is no more than using a computer to represent data somehow (it is not clear whether "defining" is creating, storing, or some function), which is what computers do. The database entity is only a collection of data and is not a program that controls operations of the computer processor. As noted in the

Specification: "Conventionally, an enterprise managed the ERP manually using spreadsheets to identify and input a problem and assign personnel to the problem." Spec., ¶ 3. Thus, it was known to use a database entity, a spreadsheet, to represent data about at least the description of a problem and personnel assigned to the problem and it can be said that the claim is merely doing with a computer what was done manually, except for the specific nature of the data. A patent would preempt the abstract idea of putting data describing information about an engineering problem on a computer.

Claim 1 broadly and generically claims the use of a computer processor defining an engineering problem and supporting managing the problem. Neither the step of using a computer processor defining an abstract collection of data nor the step of using the computer processor "supporting managing by a review board" transform the nature of the claim into patent-eligible subject matter. Apparatus claim 13 and system claim 18 similarly do nothing more than recite the use of a computer processor or a server device to store data and support managing and are directed to patent-ineligible subject matter for the same reasons.

<div align="center">CONCLUSION</div>

The rejection of claims 1, 2, 6–14, and 17–21 is reversed.

New grounds of rejection are entered as to claims 1, 2, 6–14, and 17–21 under 35 U.S.C. § 112, second paragraph, and § 101.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b), which provides that "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review." Section 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options

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with respect to the new ground of rejection to avoid termination of the appeal

as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment
> of the claims so rejected or new evidence relating to the claims so
> rejected, or both, and have the matter reconsidered by the
> examiner, in which event the proceeding will be remanded to the
> examiner. . . .

> (2*) Request rehearing.* Request that the proceeding be
> reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with

this appeal may be extended under 37 C.F.R. § 1.136(a).

<u>REVERSED; 37 C.F.R. § 41.50(b)</u>

<u>lp</u>