UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN T. BRIDGES and MARK E. WEAR

Appeal 2012-011327
Application 12/335,970[1]
Technology Center 2100

Before ST. JOHN COURTENAY III, THU A. DANG, and LARRY J. HUME, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the final rejection of claims 1–30. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

[1] According to Appellants, the real party in interest is Lockheed Martin Corp. App. Br. 1.

STATEMENT OF THE CASE[2]

The Invention

Appellants' claimed invention relates to a method and apparatus that provides dynamic refinement of geospecificity of geospatial content in geographic information systems. Abstract.

Exemplary Claims

Claims 1 and 26, reproduced below, are representative of the subject matter on appeal (*emphasis* added):

> 1. A method for use in a geographic information system, comprising:
>
> receiving ground information pertaining to a geographic location represented in a geospatial content; and
>
> dynamically *refining the geospecificity of geospatial content with the received ground information*; and
>
> wherein the receiving and the refining are performed by a processor.
>
> 26. A computer-readable, program storage medium encoded with a data product comprising geospatial content, the geospatial content including:
>
> at least one data layer; and
>
> *a ground control layer*.

[2] Our decision relies upon Appellants' Appeal Brief ("App. Br.," filed May 3, 2012); Reply Brief ("Reply Br.," filed Aug. 2, 2012); Examiner's Answer ("Ans.," mailed June 5, 2012); Final Office Action ("Final Act.," mailed Mar. 30, 2012); and the original Specification ("Spec.," filed Dec. 16, 2008).

Prior Art

The Examiner relies upon the following prior art as evidence in rejecting the claims on appeal:

Bailly et al. ("Bailly")	US 7,933,395 B1	Apr. 26, 2011 (Claiming benefit under 35 U.S.C. § 119(e) to U.S. Provisional Appl. 60/694,529, filed June 27, 2005)

Rejection on Appeal

Claims 1–30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bailly. Ans. 5–9.[3]

[3] We invite the Examiner's attention to claims 9–16 and 25–30 which variously recite a "computer-readable program storage medium." Under our jurisprudence, the scope of the recited "computer-readable storage medium" appears to encompass transitory media such as signals or carrier waves. *See Ex parte Mewherter*, 107 USPQ2d 1857 (PTAB 2013) (precedential) (holding recited machine-readable storage medium ineligible under § 101 since it encompasses transitory media). Here, the recited "computer-readable program storage medium" (claims 9–16 and 25–30) is not claimed as non-transitory, and the originally-filed Specification does not expressly and unambiguously disclaim transitory forms, such as signals, via a definition. "[T]hat the software implemented aspects of the invention are typically encoded on some form of program storage medium or implemented over some type of transmission medium . . . [but t]he invention is not limited by these aspects of any given implementation." Spec. ¶ 31. Therefore, the "computer-readable program storage medium" of claims 9–16 and 25–30 is not limited to non-transitory forms, and appears ineligible under § 101. Moreover, the body of claim 26 merely recites an arrangement of data (i.e., a data structure *per se*) encoded on a medium. Non-functional descriptive material refers to data content that does not exhibit a functional interrelationship with the substrate and does not affect the way the computing processes are performed. *See* MPEP 2601.01. Because the data elements recited in the body of claim 26 are not positively recited as

CLAIM GROUPING

Based on Appellants' arguments (App. Br. 6–11), we decide the appeal of the rejection of claims 1–25 on the basis of representative independent claim 1. We decide the appeal of the rejection of claims 26–30 on the basis of separately argued independent claim 26.

ISSUES AND ANALYSIS

In reaching this decision, we consider all evidence presented and all arguments actually made by Appellants. We do not consider arguments which Appellants could have made but chose not to make in the Briefs so that we deem any such arguments as waived. 37 C.F.R. § 41.37(c)(1)(vii).

We disagree with Appellants' arguments with respect to claims 1–30, and we incorporate herein and adopt as our own: (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons and rebuttals set forth in the Examiner's Answer in response to Appellants' arguments. We incorporate such findings, reasons, and rebuttals herein by reference unless otherwise noted. However, we highlight and address specific findings and arguments regarding claims 1 and 26 for emphasis as follows.

---

executable code, or as data structures that exhibit *any* functional relationship with the claimed substrate (storage medium), the "at least one data layer; and a ground control layer" appear to be non-functional descriptive material (a data structure per se) which represents a non-statutory abstract idea. For example, the broad scope of claim 26 would appear to cover a GPS-encoded (i.e., ground control layer) digital photograph (data layer image) stored on a disk. Merely storing a photograph on a disk (medium) does transform the content of the photograph such that it falls under the subject matter of a utility patent. Such subject matter content properly falls under existing copyright law, assuming the photograph is fixed and original.

1. <u>§ 102 Rejection of Claims 1–25</u>

<u>Issue 1</u>

Appellants argue (App. Br. 6–10;[4] Reply Br. 2–9) the Examiner's rejection of claims 1–25 under 35 U.S.C. § 102(e) as anticipated by Bailly is in error. These contentions present us with the following issue:

Did the Examiner err in finding Bailly discloses a method that includes, *inter alia*, the step of "refining the geospecificity of geospatial content with the received ground information," as recited in claim 1?

<u>Analysis</u>

Appellants contend the Examiner mistakes the end use of geospatial data for visualization purposes, with the modification of such visualization data and, "[because Bailly] does not teach how to modify the rendered data, it cannot teach 'refining the geospecificity of geospatial content,'" as claimed. App. Br. 9.

During examination, a claim must be given its broadest reasonable interpretation consistent with the Specification, as it would be interpreted by one of ordinary skill in the art. Because the applicant has the opportunity to amend claims during prosecution, giving a claim its broadest reasonable interpretation will reduce the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984); *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.").

[4] We note Appellants omitted pagination from their Appeal Brief.

Appellants allege the terms "geospecificity" and "geospatial content" are terms of art, and point to their Specification in support of this contention. App. Br. 6–7 (citing Spec. ¶¶ 4 and 32). Based upon their reading of the Specification, Appellants set forth a claim construction of the recited "refining the geospecificity of geospatial content" as meaning "at least that one is modifying the accuracy of the information as represented in the data." App. Br. 7.

We first point out the portions of the Specification relied upon by Appellants in support of their preferred definition are not explicit definitions, but instead describe exemplary non-limiting embodiments. In particular, paragraph 4 of the Specification describes, in pertinent part, "[t]he accuracy of the geographical reference for a given piece of information *may be* called 'geospecificity'. The data is stored in a data structure of some kind, such as a database, and so *may be* referred to as 'geospatial content'." Further, the Specification describes, "[t]he geospatial content 103 is actually collections or sets of ordered data. In the illustrated embodiment, the data is two-dimensional . . . [or] *may be* three-dimensional . . . [and] *may be* rendered to make it perceptible by image analysts. For example, the geospatial content 103 *may be* rendered for output in hard copy, or it *may be* rendered and displayed electronically." Spec. ¶ 32 (emphasis added).

Given the *context* of the Specification, we conclude the "accuracy of the information as represented in the data" may be broadly but reasonably construed, *inter alia*, as being affected or improved by the addition of various "layers of intrinsically georeferenced data," which are "'co-registered', or mapped to each other." Spec. ¶ 5. We also conclude the

recited "ground information" broadly covers, *inter alia*, information relating to a specific geographic location. In particular,

> [G]round information 170 is presented in **FIG. 2** as additional control points 210. That is, the data acquisition process may result in a data point comprising latitude, longitude, and elevation that does not appear in the ground control layer 127. The ground control update manager 168 can then add the new control point 210, map it back into the co-registered data layers 128 using techniques well known to the art, and store the mapping with the new control 210 in the ground control layer 127.

Spec. ¶ 42.

In agreement with the Examiner (Ans. 6), we find Bailly discloses the recited "refining the geospecificity of geospatial content with the received ground information" at column 16, lines 11 through 15, i.e., "a variety, of data layers that can be selected to display over the viewing area . . . [and e]xample data layers include points of interest as well as map, road, terrain, and 3D buildings."

Appellants further contend, "[n]owhere does *Bailly* . . . teach how the rendered data is generated, maintained, or modified . . . [and therefore, b]ecause Bailly . . . does not teach how to modify the rendered data, it cannot teach 'refining the geospecificity of geospatial content'." App. Br. 9.[5]

We disagree with Appellants, and agree with the Examiner's finding that Bailly specifically discloses a graphical user interface that allows users to not only select various visualization parameters related to layering of

[5] We note Appellants' arguments are not commensurate with the scope of claim 1 which does not require generating, maintaining, or modifying rendered data.

georeferenced data, but to also update or modify the data (in database 110, Figure 1 of Bailly, for example), but to also allow dynamic visualization of the data. Ans. 12. We also agree with the Examiner' finding that Bailly therefore discloses the contested limitation of "dynamically refining the geospecificity of geospatial content with the received ground information," as recited in claim 1.

Therefore, based upon the findings above, on this record, we are not persuaded of error in the Examiner's reliance on Bailly to disclose the contested limitation of claim 1. Accordingly, we sustain the Examiner's finding of anticipation of claim 1, and of claims 2–25, which fall therewith. *See* Claim Grouping, *supra*.[6]

2. <u>§ 102 Rejection of Claims 26–30</u>

<u>*Issue 2*</u>

Appellants argue (App. Br. 10–11; Reply Br. 9–11) the Examiner's rejection of claim 26 under 35 U.S.C. § 102(e) as being anticipated by Bailly is in error. These contentions present us with the following issue:

[6] In the event of further prosecution, we invite the Examiner's attention to dependent claim 25 to determine whether this claim meets the requirements of 35 U.S.C. § 112, fourth paragraph, for failing to further limit the subject matter of claim 1. Claim 25 recites, "[a] computer-readable, program storage medium encoded with a data product produced by the method of claim 1." However, claim 25 fails to specify a further limitation of the subject matter of claim 1 to which it refers because it is completely outside the scope of claim 1. *Pfizer, Inc. v. Ranbaxy Labs. Ltd*., 457 F.3d 1284, 1292 (Fed. Cir. 2006).

Did the Examiner err in finding Bailly discloses a computer-readable program storage medium encoded with a data product comprising geospatial content that includes "a ground control layer," as recited in claim 26?

Analysis

Appellants contend Bailly does not teach a "ground control layer" in the "geospatial content." App. Br. 10.

In the Reply Brief, Appellants "concede that geospatial data is sometimes 'layered' in the sense that it may comprise a plurality of 'data layers'," but argue "even conventional, layered geospatial content [that] is layered does not include a ground control layer in addition to the data layers." Reply Br. 10.

In the "INDEXING OF THE CLAIMS" section of the Appeal Brief, Appellants state support for the contested limitation of claim 26, i.e., "a ground control layer," may be found at Figures 1 and 2 (element 127), and paragraph 22, lines 19–24. At these portions of Appellants' Drawings and Specification, we do not find, nor do Appellants argue in their briefs, any particular definition of the recited "ground control layer," other than to assert, without providing any evidence that Bailly does not disclose such a layer.[7]

To the extent Appellants Specification appears to discuss a "ground control layer," we note:

[7] Appellants' assertions amount to unsupported attorney argument, and therefore we give them little weight. *See In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997); *see also In re Huang*, 100 F.3d 135, 139–40 (Fed. Cir. 1996).

> The ground control layer 127 comprises a plurality of control points 200 (only one indicated), each control point including a latitude, a longitude, an elevation and a mapping backing into the co-registered data layers 128 . . . . In this particular embodiment, the control points 200 are instead accumulated, mapped into the data layers 128, and added to the geospatial content 103 as the ground control layer 127.

Spec. ¶ 25. Thus, under the broadest reasonable interpretation standard, we conclude a "ground control layer" is a data layer that includes geographic location information for multiple points, as well as information that relates to other co-registered data layers.

We find Bailly clearly discloses multiple geographic data layers, including "ground overlays" (Abstract); layer control i.e., "[t]he GUI **201***a* also includes layer control **307**, which provides a variety of data points of geographic interest (e.g., points of interest, as well as map, road, terrain, and building data) that a user can select to display over the viewing area" (Bailly col. 15, ll. 20–24); and "a variety of data layers that can be selected to display over the viewing area." Bailly col. 16, ll. 12–13. On this record, we agree with and adopt as our own the Examiner's finding that Bailly discloses this limitation. *See* Ans. 8 and 13.

Therefore, based upon the findings above, on this record, we are not persuaded of error in the Examiner's reliance on Bailly to disclose the contested limitation of claim 26, nor do we find error in the Examiner's resulting finding of anticipation of claim 26.

REPLY BRIEF

To the extent Appellants may advance new arguments in the Reply Brief (Reply Br. 2–12) not in response to a shift in the Examiner's position

in the Answer, we note that "[a]ny bases for asserting error, whether factual or legal, that are not raised in the principal brief are waived." *Ex parte Borden*, 93 USPQ2d 1473, 1474 (BPAI 2010) (informative). *Cf. with Optivus Tech., Inc. v. Ion Beam Appl'ns. S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) ("[A]n issue not raised by an appellant in its opening brief . . . is waived.").

CONCLUSION

The Examiner did not err with respect to the anticipation rejection of claims 1–30 under 35 U.S.C. § 102(e) over Bailly, and we sustain the rejection. [8]

---

[8] Claim 1 recites a method "wherein the receiving and the refining are performed by a processor," and claim 26 recites "geospatial content including . . . at least one data layer; and a ground control layer." In the event of further prosecution, we also leave it to the Examiner to evaluate the pending claims for compliance with 35 U.S.C. § 101 in view of the Supreme Court decision in *Bilski v. Kappos*, 130 S. Ct. 3218, 3221 (2010), MPEP § 2106.01 (August 2012), and post-Bilski application under § 101, including *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (holding that a method for verifying the validity of a credit card transaction over the Internet to be nonstatutory as an abstract idea capable of being performed in the human mind or by a human using a pen and paper). That is, we leave it to the Examiner to evaluate whether claim 1's "receiving" and "refining" steps comprise an abstract idea capable of being performed in the human mind or by a human using a pen and paper. We further refer to *Digitech*, where the Federal Circuit has provided additional guidance on the issue of statutory subject matter by holding claims to a process of organizing information through mathematical correlations was not tied to a specific structure or machine, and was thus an abstract idea and ineligible under § 101. *Digitech Image Tech., LLC v. Electr. for Imaging, Inc.*, 758 F.3d 1344, 1350–51 (Fed. Cir. 2014). We also leave it to the Examiner to evaluate as to whether claim 1 is an abstract idea with only a tangential, if any, relationship to a specific structure or machine. The

DECISION

We affirm the Examiner's decision rejecting claims 1–30 under § 102.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED

kis

Supreme Court recently reaffirmed that fundamental concepts, by themselves, are ineligible abstract ideas under § 101. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2358 (2014); *and see* "2014 Interim Guidance on Patent Subject Matter Eligibility," Dec. 16, 2014. Abstract ideas have been identified by the courts by way of example, including fundamental economic practices, certain methods of organizing human activities, an idea "of itself," and mathematical relationships/formulas. *Alice Corp*., 134 S. Ct. at 2355–56. All claims on appeal appear to be directed to dynamically refining the geospecificity of geospatial content with received ground information, which may constitute abstract ideas. Although the Board is authorized to reject claims under 37 C.F.R. § 41.50(b), no inference should be drawn when the Board elects not to do so. *See Manual of Patent Examining Procedure* (MPEP) 1213.02.