UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/768,427	02/15/2013	Thomas E. Sherer	B86918 1320US.1 (0052.1)	5374

128836 7590 01/02/2018

WOMBLE BOND DICKINSON (US) LLP
Attn: IP Docketing
P.O. Box 7037
Atlanta, GA 30357-0037

EXAMINER
DIVELBISS, MATTHEW H

ART UNIT	PAPER NUMBER
3624	

NOTIFICATION DATE	DELIVERY MODE
01/02/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentadmin@Boeing.com
ipdocketing@wbd-us.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS E. SHERER, DAVID L. GROSE, and SCOTT D. BUTTON[1]

Appeal 2016-005471
Application 13/768,427
Technology Center 3600

Before BRADLEY W. BAUMEISTER, JEREMY J. CURCURI, and NABEEL U. KHAN, *Administrative Patent Judges*.

BAUMEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–21. App. Br. 1.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

---

[1] Appellants list The Boeing Company as the assignee and real party in interest. Appeal Brief filed November 9, 2015 ("App. Br.") 1.

[2] Rather than repeat the Examiner's positions and Appellants' arguments in their entirety, we refer to the above-mentioned Appeal Brief, as well as the following documents for their respective details: the Final Action mailed August 6, 2015 ("Final Act."); the Examiner's Answer mailed March 18, 2016 ("Ans."); and the Reply Brief filed April 22, 2016 ("Reply Br.").

STATEMENT OF THE CASE

Appellants describe the present invention as follows:

> A method is provided that includes receiving a plan model for a process including a plurality of tasks, and generating a layout including a network diagram that expresses the plan model. The method also includes simulating execution of the plan model, and dynamically updating the network diagram to reflect an actual task duration tracked for each task during the simulation. The network diagram includes along a time-directed axis, a plurality of task nodes that express respective tasks, with each task node being expressed as a first multi-dimensional shape having an outline with a dimension along the axis sized according to a task duration for a respective task. In the updated network diagram, then, each task node further includes a fill in the same first multi-dimensional shape as the respective outline but with a dimension along the axis sized according to the actual task duration of the respective task.

Abstract.

Apparatus claim 1 and method claim 8, reproduced below, are illustrative of the appealed claims:

> 1. An apparatus for implementation of a plan executor, the apparatus comprising a processor and a memory storing executable instructions that, in response to execution by the processor, cause the apparatus to implement at least:
>
> a layout engine configured to receive a plan model for an aircraft development process including a plurality of tasks to produce respective internal products corresponding to respective components of the aircraft, and generate a layout including a network diagram that expresses the plan model, the network diagram including along a time-directed axis, a plurality of task nodes that express respective tasks of the aircraft development process, each task node being expressed as a first multi-dimensional shape having an outline with a dimension along the axis sized according to a task duration for a respective task; and

a simulator coupled to the layout engine and configured to simulate execution of the plan model, the simulator being configured to track and communicate to the layout engine, actual task duration of each task during the simulation, the layout engine being configured to dynamically update the network diagram during the simulation to reflect the actual task duration, wherein in the updated network diagram, each task node further includes a fill in the same first multidimensional shape as the respective outline but with a dimension along the axis sized according to the actual task duration of the respective task.

8. A method comprising:

receiving a plan model for an aircraft development process including a plurality of tasks to produce respective internal products corresponding to respective components of the aircraft;

generating a layout including a network diagram that expresses the plan model, the network diagram including along a time-directed axis, a plurality of task nodes that express respective tasks of the aircraft development process, each task node being expressed as a first multi-dimensional shape having an outline with a dimension along the axis sized according to a task duration for a respective task;

simulating execution of the plan model, including tracking actual task duration of each task during the simulation; and

dynamically updating the network diagram during the simulation to reflect the actual task duration, wherein in the updated network diagram, each task node further includes a fill in the same first multi-dimensional shape as the respective outline but with a dimension along the axis sized according to the actual task duration of the respective task.

App. Br. 14, 16 (Claims Appendix).

Claims 1–21 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 3.

Claims 1, 2, 5–9, 12–16, and 19–21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Grose (US 2008/0319719 A1; published Dec. 25, 2008), Bahrami (US 2004/0078777 A1; published Apr. 22, 2004), and Pederson (US 2009/0164933 A1; published June 25, 2009). Final Act. 5.

Claims 3, 4, 10, 11, 17, and 18 over the combination of Grose, Bahrami, Pederson, and Kennedy (US 5,764,543; issued June 9, 1998).

We review the appealed rejections for error based upon the issues identified by Appellants, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

THE § 101 REJECTION

Overview of Findings and Contentions

The Examiner finds that method claims 8–14 are directed to an abstract idea because the claims recite "a method of organizing human activity with all or a majority of the [claim steps] recited at a high level of generality and merely acted upon by a user." Final Act. 3. The Examiner further finds that the elements of the claimed process, when taken in combination, do not recite significantly more than the abstract idea itself. *Id.* at 4. According to the Examiner, the steps performed by the computer constitute recitations of well-known computer functions that do not add significantly more to the abstract idea. *Id.* The Examiner likewise finds that the structures recited in apparatus, system, and computer-readable-media

claims 1–7 and 15–21 do not add significantly more to the abstract idea. *Id.* at 4–5.

Appellants contend that the Examiner erred in rejecting the claims as being directed to non-statutory subject matter. App. Br. 5. In support of this position, Appellants argue that the Examiner erred in finding the claims to be directed to an abstract idea (*id.* at 6–8) and in finding that the claims do not add significantly more (*id.* at 8–9). We address the details of these arguments in the Analysis section, below.

Principles of Law

Patent eligibility is a question of law that is reviewable *de novo*. *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012).

In determining whether the claims set forth patent eligible subject matter under 35 U.S.C. § 101, we first must determine whether the claims at issue are directed to laws of nature, natural phenomena, or abstract ideas. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014). In considering whether a claim is directed to an abstract idea, we acknowledge, as did the Court in *Mayo*, that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71 (2012). We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

If a claim is directed to an abstract idea, we then must consider whether the claim contains an element or a combination of elements that is

sufficient to transform the nature of the claim into a patent-eligible application. *Ultramercial*, 772 F.3d at 714*; Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S.Ct. 2347, 2355 (2014).

> In applying step two of the Alice analysis, we must "determine whether the claims do significantly more than simply describe [the] abstract method" and thus transform the abstract idea into patentable subject matter. . . . We look to see whether there are any "additional features" in the claims that constitute an "inventive concept," thereby rendering the claims eligible for patenting even if they are directed to an abstract idea. . . . Those "additional features" must be more than "well-understood, routine, conventional activity."

Intellectual Ventures I LLC v. Erie Indemnity Company, 850 F.3d 1315, 1328 (Fed. Cir. 2017) (citations omitted).

"[C]laims [that] merely require generic computer implementation[] fail to transform [an] abstract idea into a patent-eligible invention." *Id.* (citing *Alice*, 134 S.Ct. at 2357).

Analysis

I.

Appellants first argue that the Examiner erred in finding the claims are directed to the abstract idea of organizing human activity because the Examiner relies upon an example in one of the USPTO's Subject-Matter-Eligibility guidelines[3] that discusses a method of playing the game of Bingo. App. Br. 6–7. Appellants argue that the present invention is not directed to

[3] July 2015 Update: Subject Matter Eligibility, available at https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf.

"more nebulous concepts of hedging, risk mitigation, or electronically managing sets of Bingo numbers and data." *Id.* at 7.

Appellants point out that "the claimed invention is related to at least generation of a network diagram that expresses a plan model for an aircraft development process, simulation of execution of the plan model, and dynamic update of the network diagram during the simulation." *Id.* at 6. According to Appellants, "the claims in the present application address the challenge of cost/schedule overruns in large-scale product development programs such as those for the planning and production of large commercial or military aircraft. *Id.* at 7.

Appellants urge that their claims address

> a challenge particular to process planning technology—and in particular computer-aided process planning technology—for complex projects. The present claims do not merely recite the performance of some known business practice along with the requirement to perform it on a computer. Instead, the claimed solution is necessarily rooted in computer technology.

Id. at 7–8 (citing *DDR Holdings, LLC v. Hotels.com, L.P,* 773 F.3d 1245, 1257 (Fed. Cir 2014)).

We acknowledge Appellants' point that their invention is not directed to playing a game of Bingo or financial hedging. But this fact is not dispositive of whether the claims are directed to patent eligible subject matter. The Examiner did not base the rejection on the theory that Appellants' claims were directed to either of these specific types of organizing human activity. Rather, we understand the Examiner to have cited the specific Bingo example to support the broader position that the courts have found organizing human activities can constitute an abstract idea.

We agree with the Examiner that claim 8 sets forth such a type of method of organizing human activities that constitutes an abstract idea. Process planning, per se, is a quintessential example of organizing human activity, as it historically has been a fundamental aspect of any manager's job responsibilities. Managers in all fields of industry, government, and sport decide for their employees and teams what work shall be undertaken, by whom, and in what order. The details of large projects may be too great to be memorized, but in these situations, the work-scheduling plans commonly were reduced to writing with pencil and paper.

One common example of how large projects historically have been planned is through the use of workflow plan diagrams that include task blocks, indications of the tasks' ordering and dependencies, and depictions of critical-path tasks. *See* e.g. Spec. 1:17–2:6. Project planners commonly tracked a project's progress by recording status information on the workflow plan diagrams. For recurring large projects,[4] project planners also commonly revised their workflow plan diagrams for future instances of the project based upon lessons learned from previous instances of the recurring project. That is, project planners commonly used past-project results as feedback to help simulate and model future projects, and they would update their project models for future instances of the large project based upon the results of these simulations.

[4] One example of such a recurring large project is the months-long inspection, testing, and maintenance of a nuclear power station's electro-mechanical piping and instrumentation control systems, which is undertaken roughly every 18 months during a reactor-refueling power outage.

Furthermore, probability risk assessment (PRA) was another well-known and long-used methodology for planning complex engineering projects. PRA entails planning for detrimental outcomes in an activity or action by quantizing (1) the likelihood of an adverse event; and (2) the severity of the associated adverse consequences. As such, simulating the execution of a plan model with a computer (e.g., by performing a Monte Carlo analysis, as described in Appellants' Spec. 17:3–11) merely entails using computers in their conventional manner to help perform the task of organizing human activities (e.g., model project events and outcomes), which was previously performed by humans, in a more efficient manner.

Appellants do not allege that it was unknown for humans to use such workflow planning diagrams prior to the advent of the internet and computer networks. Appellants do not allege that it was unknown for humans to undertake project planning by performing mental simulations of workflow planning models (e.g., estimating the likelihood that an activity would experience undue delay and determining what factors of safety need to be built into activity-time projections). *See generally* App. Br., Reply Br.

We disagree with Appellants' assertion that the present invention is rooted in computer technology. *See* App. Br. 7–8. We do not doubt that computer-aided planning software greatly assists the creation of workflow plan diagrams for very complex projects, such as the planning and production of military aircraft. The use of such software and computer programs arguably may even be necessary in some instances. This presumed fact does not mean the problem to be solved necessarily is rooted in computer technology. *See DDR Holdings*, 773 F.3d 1257. Rather, such examples merely indicate that computers can be used in their conventional

manner to allow conventional methods of organizing human activity to be used for completing large complex projects more efficiently.

II.

We likewise disagree with Appellants' assertion that the Examiner erred in determining that the claims do not add significantly more. App. Br. 8–9. Appellants contend that "the claims address the problem of cost/schedule overruns in large-scale product development programs that may not be otherwise seen in the case of existing process planning methods." *Id.* at 8. Problems with schedule and cost overruns, though, long existed in projects of all sizes, and they existed well before the advent of the internet. Appellants' invention, as claimed, appears to be directed towards automating the creation of workflow plan diagrams and revising the same after simulation-testing the plan.

Appellants provide insufficient evidence to support their argument that the elements of the claims, taken either individually or as an ordered combination, add significantly more to the abstract idea of organizing human activity. This is particularly so when Appellants' argument is weighed against the Examiner's findings, which have a foundation in Appellants' Specification. Appellants merely restate the language of claim 1 without providing sufficient reasoning for why the claim language allegedly is solving a problem rooted in computer technology, as opposed to merely setting forth computer components that are used in their conventional manner for performing abstract processes more efficiently:

> [I]ndependent Claim 1 recites an apparatus including a) generation of a network diagram including task nodes sized according to their task durations, b) simulation of execution of the plan model and tracking of actual task durations, and

> c) dynamic update of the network diagram in which the task nodes further include a fill sized according to their actual task durations. In this way, task durations in a plan model may be viewed against actual task durations tracked during simulation of execution of the plan model, which may provide information to identify overruns and facilitate remedial actions to address them. These additional limitations amount to more than simply stating "apply the abstract idea on a computer." Therefore, when taken as a whole, the claimed invention has additional limitations that amount to significantly more than the abstract idea. And accordingly, the claims recite patent eligible subject matter.

App. Br. 8.

Furthermore, the Examiner provides a basis for finding that the claimed computer elements are mere recitations of generic computer components that add nothing of substance to the underlying abstract idea. Final Act. 4–5 (citing Spec. 24:13–26:16). A review of this cited passage of the Specification supports the Examiner's finding. *See, e.g.,* Spec. 24:13–16 ("The processor is generally any piece of hardware that is capable of processing information such as, for example, data, computer-readable program code, instructions or the like (generally 'computer programs,' e.g., software, firmware, etc.), and/or other suitable electronic information"); Spec. 26:3–6 ("As will be appreciated, any suitable program code instructions may be loaded onto a computer or other programmable apparatus from a computer-readable storage medium to produce a particular machine, such that the particular machine becomes a means for implementing the functions specified herein"); Spec. 17:5–6 ("The

simulation may be carried out in a number of different manners, such as according to a Monte-Carlo analysis").[5]

Conclusions

Appellants do not persuade us the Examiner erred in concluding that independent claims 1 and 8 are directed to patent-ineligible subject matter. Accordingly, we affirm the § 101 rejection of those claims, as well as the rejection of claims 2–7 and 9–21, which Appellants do not argue separately. *See* App. Br. 5–9, Reply Br. 1–5.

THE § 103 REJECTIONS

Examiner Findings

The Examiner finds that Grose discloses most of the apparatus limitations of claim 1, such as a layout engine that generates a layout including a network diagram. Final Act. 6–7. The Examiner finds that this network diagram includes a time-directed axis, and a plurality of task nodes that express respective tasks of the aircraft development process. According to the Examiner, each task node is expressed as a multi-dimensional shape having an outline with a dimension along the axis. *Id.*

The Examiner finds that Bahrami teaches task diagrams that are sized according to a task duration for a respective task, as well as a simulator coupled to the layout engine. *Id.* at 7–8 (citing Bahrami ¶¶ 37–39). According to the Examiner, Bahrami's simulator simulates execution of the

[5] "Monte Carlo simulation, or probability simulation, is a technique used to understand the impact of risk and uncertainty in financial, project management, cost, and other forecasting models." *What is Monto Carlo Simulation?* a*vailable at* https://www.riskamp.com/files/RiskAMP%20-%20Monte%20Carlo%20Simulation.pdf.

plan model, tracks task duration during the simulation, and communicates this information to the layout engine. *Id.* (citing Bahrami ¶¶ 37–38). The Examiner additionally finds that the layout engine is configured to dynamically update the network diagram to reflect the actual task duration. *Id.* at 8. The Examiner finds that motivation existed to combine the teachings of Grose and Bahrami (*id.* at 8–9), but that the combination still fails to teach that the dynamic updating of the network diagram specifically occurs during the simulation or that the task nodes are filled along the outlines according to the simulation's actual task duration (*id.* at 9).

The Examiner finds that Pederson teaches a graphic display representing an actual process (as opposed to a simulation) may be updated in real time to show real-time status and or progress information. *Id.* at 9 (citing Pederson ¶ 52). The Examiner finds that Pederson's depicted bar graphs "include a fill in the shape of the graph that fills in the direction of time as portions of the task are completed relative to time. *Id.* (citing Pederson ¶¶ 9, 10, 43, 35; Figs. 4–6). The Examiner concludes that it would have been obvious "to further utilize the filling of nodes based on [the] completion of task parameters and/or the passage of time[,] as disclosed in Pederson" within the display of the simulated execution of a network information model, as taught by the combination of Gross and Bahrami. *Id.* at 9–10.

The Examiner finds that one would have been motivated to update the simulation display in this manner "to efficiently display the progress status of the nodes in the workflow" because "the claimed invention is merely a combination of old elements, and in combination each element merely would have performed the same function as it did separately, and one of

ordinary skill in the art would have recognized that the results of the combination were predictable." *Id.*

Principles of Law

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Merck & Co.*, Inc., 800 F.2d 1091, 1097 (Fed. Cir. 1986).

Contentions and Analysis

In section 7.B(1) of the Appeal Brief, Appellants argue that Bahrami does not teach tracking actual task duration and dynamically updating a network diagram during the simulation. App. Br. 9–10. This argument is unpersuasive because the Examiner relies upon Pederson—not Bahrami—for teaching that Grose's network diagram may be updated dynamically during a simulation carried out according to Bahrami. Ans. 9 (finding that Pederson "teaches the graphic displayed in the process graphic area may be dynamically updated in real-time to show real-time status and/or progress information"). It follows that in order to update the status in real-time, Pederson also must track the task in real time.

In this section of the Appeal Brief, Appellants also argue that "Bahrami does not disclose a network diagram" because it is unreasonable to construe Bahrami's Gantt chart as corresponding to the recited network diagram. App. Br. 10. We need not decide whether a Gantt chart reasonably may be interpreted as constituting a network diagram, as claimed, because the Examiner additionally relies upon Grose for teaching the network diagram. Final Act. 7.

In section 7.B(2) of the Appeal Brief, Appellants first argue the Examiner erred in finding Pederson teaches "the graphic displayed in the process graphic area may be dynamically updated in real-time to show real-time status and/or progress information" because "Pederson does not disclose that its graphic is a network diagram." App. Br. At 10–11. This argument is unpersuasive because the Examiner relied upon Grose—not Pederson—for teaching network diagrams. Final Act. 7.

Appellants next argue that "Pederson does not disclose that its graphic is updated during a simulation, similar to the network diagram of the claimed invention." App. Br. 11. According to Appellants, "Pederson does disclose execution of a batch recipe, but Pederson does not disclose simulation of execution of the batch recipe or any other simulation." *Id.* This argument is not persuasive because the Examiner relies upon the combination of Grose and Bahrami—not Pederson—for teaching a graphical display can represent a simulation instead of an actual process. Final Act. 9–10.

In section 7.B(3) of the Appeal Brief, Appellants argue the Examiner erred in finding that Pederson discloses "task nodes of a network diagram each of which further includes a fill sized according to actual task duration." App. Br. 11. According to Appellants, Pederson, like Bahrami, discloses a Gantt bar chart, and it would be unreasonable to interpret the claimed network diagram as corresponding to a bar graph. *Id.* This argument is unpersuasive because the Examiner relies upon Grose—not Pederson—for teaching a network diagram having task nodes. Final Act. 6–7.

In section 7.B(4) of the Appeal Brief, Appellants challenge the Examiner's combination of Grose and Bahrami. App. Br. 11–12.

Appellants argue that "even given the modification of Grose to include Bahrami's simulator, this alone does not substantiate the proffered mashup of Grose's network diagram and Bahrami's Gantt chart to teach the recited network diagram." *Id.* at 12. According to Appellants, "[t]he Examiner provides absolutely no support for the conclusion" that "a person of ordinary skill in the art would use [Bahrami's Gantt chart] as a reference in constructing a network diagram and would thereby understand the incorporation of its various features." *Id.* In Appellants' view, the combination "is the epitome of a broad conclusory statement that without more cannot substantiate obviousness." *Id.* Appellants expand upon this argument in their Reply Brief:

> It could be argued that the process constructed according to Grose may be simulated according to Bahrami. But just because both are directed to process management, it does not then simply follow that the simulation of Bahrami would then lead back into the process construction of Grose. And even if the simulation of Bahrami led to a modification of the process constructed according to Grose, it still does not follow that it would have been obvious to mashup Grose's network diagram with Bahrami's Gantt chart in either the process construction or simulation.

Reply Br. 9–10.

We disagree with Appellants' assertions that the rejection is based upon only conclusory statements or that Examiner provides no support for the proposed combination. The Examiner cited teachings of Grose and Bahrami as evidence that "the claimed invention is merely a combination of old elements." Final Act. 8. And the Examiner reasoned that when combined, "each element merely would have performed the same function as it did separately, and one or ordinary skill in the art would have

recognized that the results were predictable." *Id.* at 8–9. "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007).

We also disagree that the rejection is based on "a mashup" of Bahrami's Gantt chart in Grose's process. *See* App. Br. 12; Reply Br. 9–10. We do not understand the Examiner to be proposing that Bahrami's Gantt charts be physically incorporated into Grose's network diagrams. We instead understand the rejection's premise to be more general—that Bahrami's simulations can be used in conjunction with Grose's network-diagram-and-node modeling process. Final Act. 6–9.

"The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). "[I]f a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

Conclusions

For the foregoing reasons, Appellants have not persuaded us of error in the Examiner's obviousness rejection of independent claim 1. Accordingly, we sustain the Examiner's rejection of that claim, as well as claims 2, 5–9, 12–16, and 19–21, which Appellants do not argue separately. App. Br. 13.

We likewise sustain the Examiner's obviousness rejection of claims 3, 4, 10, 11, 17, and 18 over the combination of Grose, Bahrami, Pederson, and Kennedy. Appellants have not particularly pointed out errors in the Examiner's reasoning regarding the additional teachings of Kennedy, but merely assert that Kennedy does not cure the alleged deficiencies of the Grose, Bahrami, and Pederson. *Id.*

DECISION

The Examiner's decision rejecting claims 1–21 is affirmed.

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED