

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WESTINGHOUSE AIR BRAKE TECHNOLOGIES CORPORATION
(d/b/a WABTEC CORPORATION),
Petitioner,

v.

SIEMENS INDUSTRY, INC.,
Patent Owner.

Case IPR2017-00580
Patent 9,233,698 B2

Before KRISTEN L. DROESCH, MEREDITH C. PETRAVICK, and
TIMOTHY J. GOODSON, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION

Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Westinghouse Air Brake Technologies Corporation (d/b/a Wabtec) (“Petitioner”) filed a Petition (Paper 2, “Pet.”) for *inter partes* review of claims 1, 2, 5, 10, 11, 14, 17, and 18 (“the challenged claims”) of U.S. Patent No. 9,233,698 B2 (“the ’698 Patent”). See 35 U.S.C. §§ 311–312. Siemens Industry, Inc. (“Patent Owner”) timely filed a Preliminary Response (Paper 10, “Prelim. Resp.”). On July 20, 2017, we instituted *inter partes* review of the challenged claims. Paper 12 (“Decision,” or “Dec.”). Patent Owner filed a Request for Rehearing (Paper 15, “Req. Reh’g”) of our Decision.

II. STANDARD OF REVIEW

When rehearing a decision on institution, the Board reviews the decision for an abuse of discretion. See 37 C.F.R. § 42.71(c). An abuse of discretion may arise if the decision is based on an erroneous interpretation of law, if a factual finding is not supported by substantial evidence, or if an unreasonable judgment is made in weighing relevant factors. *Star Fruits S.N.C. v. U.S.*, 393 F.3d 1277, 1281 (Fed. Cir. 2005); *Arnold P’ship v. Dudas*, 362 F.3d 1338, 1340 (Fed. Cir. 2004); *In re Gartside*, 203 F.3d 1305, 1315–16 (Fed. Cir. 2000). The burden of showing that the decision should be modified is on Patent Owner, the party challenging the decision. See 37 C.F.R. § 42.71(d). In addition, “[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed.” *Id.*

III. DISCUSSION

Patent Owner argues that the Board erred legally in construing the term “task,” and misapprehended Patent Owner’s arguments regarding “at least one controller executing first and second tasks,” as recited in claim 1. *See* Req. Reh’g 1–3, 12–14.

A. Construction of “Task”

In our Decision, we construed the broadest reasonable interpretation in light of the ’698 Patent Specification of “task” according to its ordinary and customary meaning as evidenced by Patent Owner’s proffered dictionary definition for “task” as follows: “(1) A sequence of instructions treated as a basic unit of work by the supervisory program of an operating system [];” and “(2) . . . a software component that can operate in parallel with other software components.” Dec. 10. Petitioner did not offer a claim construction for “task.” *See* Pet. 28–29. The sum total of argument concerning the proper construction of this term in Patent Owner’s Preliminary Response is the following single sentence: “Applying the broadest reasonable interpretation standard in light of the specification, Patent Owner submits that the term ‘task’ in the claims of the ’698 Patent be construed as: ‘A set of instructions that may be executed by a processor to perform an operation.’ (Ex. 1001 at 6:3–12; Ex. 2004 at ¶ 63).” Prelim. Resp. 43. We looked to Patent Owner’s cited evidence to determine the existence of sufficient support for Patent Owner’s proposed construction for task. *See* Dec. 8–10. Specifically, we looked to Patent Owner’s citations to the ’698 Patent Specification disclosing a physical or virtual controller platform including a processor coupled to memory and including therein an operating system and application program software module instruction sets

that are accessed and executed by the processor to cause its respective control device to perform control operations. *See* Dec. 8 (citing Ex. 1001, 6:3–12). We also looked to Patent Owner’s cited expert testimony by Dr. Shukri Sourì, who testified that a person of ordinary skill in the art “would understand that the term ‘task’ as used in the ‘698 Patent refers to a ‘set of instructions that may be executed by a processor to perform an operation.’” Dec. 8; Ex. 2004 ¶ 63 (citing Ex. 2011). Exhibit 2011, relied upon by Dr. Sourì, provides the following definitions from IEEE Standard Computer Dictionary A Compilation Of IEEE Standard Computer Glossaries (1990) for task: “(1) A sequence of instructions treated as a basic unit of work by the supervisory program of an operating system []; (2) In software design, a software component that can operate in parallel with other software components.” Ex. 2004 ¶ 63; Ex. 2011, 13. Dr. Sourì further testified that the proposed construction of task was consistent with the ’698 Patent disclosure. Ex. 2004 ¶ 63 (citing Ex. 1001, 6:3–12; 7:19–37). We also noted that the ’698 Patent further discloses, in the same paragraph cited by Dr. Sourì, an exemplary embodiment of the separate tasks where both tasks are executed simultaneously and virtually in real time, in a common computer processor. *See* Dec. 9–10 (quoting Ex. 1001, 7:37–48). In rendering our Decision, we noted that Patent Owner and Dr. Sourì’s testimony did not explain sufficiently why the proposed construction of “task” omits details from the dictionary definition directed to treatment of a task as a basic unit of work by a supervisory program or operating system, and describing a task as a software component that can operate in parallel with other software components. *See id.* at 9. In other words, Patent Owner and Dr. Sourì’s testimony did not make clear why the proposed construction

for “task” departed from the ordinary and customary meaning, as evidenced by the dictionary definition proffered by Dr. Souri. We adopted the dictionary definition as the ordinary and customary meaning and broadest reasonable interpretation for “task,” because the definition was consistent with the full disclosure of the ’698 Patent Specification. *See id.* at 10. We also noted that our construction was based on the current record and for purposes of the institution decision. *Id.*

Patent Owner argues the Board’s construction of “task” was erroneous because the Board began its construction by first selecting the two dictionary definitions and then looking to the Patent Specification for support for those definitions. *See* Req. Reh’g 4 (citing *PPC Broadband, Inc. v. Corning Optical Commc’ns RF, LLC*, 815 F.3d 747, 752 (Fed. Cir. 2016)). Patent Owner contends that, like in *PPC Broadband*, the Board erred by accepting a dictionary definition that does not comport with the ’698 Patent disclosure. *See id.* at 4–5.

We are not persuaded that there was an abuse of discretion in construing the term “task” according to its ordinary and customary meaning as evidenced by the dictionary definition provided by Patent Owner’s expert Dr. Souri. *See* Ex. 2004 ¶ 63. Patent Owner’s arguments appear to be based on the order in which the ’698 Patent Specification disclosures and dictionary definitions were discussed in the Decision. *See* Dec. 8–10. Nonetheless, even if the dictionary definitions were considered before the ’698 Patent Specification disclosures, as argued by Patent Owner, we are not persuaded it amounts to an erroneous interpretation of law.

[T]here is no magic formula or catechism for conducting claim construction. Nor is the court barred from considering any particular sources or required to analyze sources in any specific

sequence, as long as those sources are not used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.

Phillips v. AWH Corp., 415 F.3d 1303, 1324 (Fed. Cir. 2005) (en banc) (citing *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1583–84 (Fed. Cir. 1996)).

Patent Owner further argues the Board erred by relying on a preferred embodiment in the '698 Patent Specification describing both tasks as executed simultaneously and virtually in real time, in a common computer processor to define the scope of the term “task.” See Req. Reh’g 5 (citing Dec. 9–10; Ex. 1001, 7:37–48; *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324, 1328 (Fed. Cir. 2002)); see *id.* at 7–8. Patent Owner contends that the '698 Patent does not affirmatively limit the claims of the '698 Patent to the preferred embodiment cited by the Board, and that the Board overlooked Patent Owner’s argument that the preferred embodiment is not recited in the instituted claims of the '698 Patent. See *id.* at 5–7 (citing Prelim. Resp. 25). Patent Owner contends that because the '698 Patent is devoid of language affirmatively limiting the claims to the parallel operation of the preferred embodiment, the claims are not limited to that preferred embodiment. See *id.* at 6 (citing *In re SP Controls, Inc.*, 453 F. App’x. 990, 994 (Fed. Cir. 2011); *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1369 (Fed. Cir. 2004)).

We are not persuaded by Patent Owner’s arguments as they are misplaced. We recognize that the challenged independent claims 1, 10, and 17 are not limited affirmatively to the exemplary embodiment where separate tasks are executed simultaneously and virtually in real time in a common processor 100. The construction of “task,” however, does not limit

the challenged claims to separate tasks executed simultaneously and virtually. Instead, the construction of “task” according to the ordinary and customary meaning merely includes the capability of a software component or sequence of instructions to operate in parallel with another software component or sequence of instructions. *See* Dec. 10.

Patent Owner further contends the Board erred in its construction of “task” by taking two alternative dictionary definitions and requiring both alternatives be met. *See* Req. Reh’g 9. Patent Owner contends the IEEE Dictionary (Ex. 2011) defines “task” in two ways, and the Board took both of the definitions and, rather than combining them with a permissive “or,” the Board required that *both* definitions be met by using a restrictive “and.” *See id.* at 9–10 (citing Dec. 10, 18). Patent Owner contends that loading the term “task” with these two definitions, each having its own limitations, does not reflect the broadest reasonable interpretation of “task” in light of the ’698 Patent. *See id.* at 10. Patent Owner argues that there is nothing that suggests that the two definitions should be combined, and the IEEE Dictionary separates the two definitions with numbers (1) and (2), and these definitions differ in their usage because the second definition applies only to “In software design,” which the Board omitted from its construction of “task.” *See id.* Patent Owner contends, “if the Board concludes that the definition of ‘task’ must come from the IEEE Dictionary, it is the first and second definitions with a permissive ‘or’ between them that correctly reflects the IEEE Dictionary definitions.” *Id.*

We are not persuaded that there was an abuse of discretion. Patent Owner does not argue persuasively that the construction of “task” is based on an erroneous interpretation of law, is not supported by substantial

evidence, or is a result of an unreasonable judgment in weighing relevant factors. A request for rehearing is not an opportunity to merely express disagreement with the decision. Nonetheless, Patent Owner does not persuasively argue that the second enumerated definition applies only to “In software design.” It is unclear how “In software design” only limits the second enumerated definition, when the “sequence of instructions treated as a basic unit of work by the supervisory program of an operating system” of the first enumerated definition is also directed to software. We view the enumerated definitions from the IEEE dictionary as variations of the same concept— a software component or sequence of instructions treated as a basic (i.e., small) unit of work such that the software component or sequence of instructions can operate in parallel with other software components or sequences of instructions.

For all of these reasons, we are not persuaded that there was an abuse of discretion in construing the term “task” in the Decision on Institution. Because we are not persuaded of an abuse of discretion, we also are not persuaded by Patent Owner’s additional arguments that the Board would have found that the ’494 Patent provides written description support for the challenged claims of the ’698 Patent. *See* Req. Reh’g. 2, 8–12. Having determined that Patent Owner has not shown that the construction of “task” in our Decision represents an abuse of discretion, we nevertheless reiterate that the construction in the Decision was for institution purposes and was based on the record at that time. The parties are free to present further arguments and evidence concerning the construction of that term in their briefing during the trial.

B. “At Least One Controller Executing First and Second Tasks”

Patent Owner argues that the Board overlooked or misapprehended Siemens’s following arguments: (1) the ’494 Patent discloses processors that execute application program 150 software module instruction sets and that those software module instruction sets cause the train control device that is coupled to the controller platform to perform control operations over their respective associated critical or vital systems; and (2) the system disclosed in the ’494 Patent can be implemented in hardware, in software, or in a combination of the two. *See* Req. Reh’g 12–13 (quoting excerpts of Prelim. Resp. 30–32). Patent Owner contends: (1) “the Board stated that it was ‘not persuaded’ by this argument;” and (2) “[t]he ’698 Patent does not require, as the Board appears to believe, that ‘the software module instruction sets *alone* . . . cause the train control device to perform control operation.” *Id.* at 13 (quoting Dec. 18–19). Patent Owner further asserts, “[r]equiring that the ‘tasks’ of the ’698 Patent *alone* complete these steps would read the requirement of ‘at least one controller’ out of the instituted claims entirely, a legal error in its own right.” *Id.* at 14.

Patent Owner misapprehends the analysis in the Decision on Institution and the corresponding Preliminary Response arguments forming the basis for the analysis. In rendering the Decision on Institution, we understood Patent Owner to argue that the ’494 Patent discloses that software module instructions sets by themselves cause the train control device to perform control operations. *See* Dec. 18. This understanding was based on the Preliminary Response argument that the ’494 Patent discloses a controller platform that includes a processor that executes program software instruction sets and that “[t]hose software module instruction sets,” which

Patent Owner equates with the “tasks” disclosed in the ’698 Patent, “cause the train control device that is coupled to the controller platform ‘to perform control operations over their respective associated critical or vital systems.’” See Prelim. Resp. 30–31. This understanding was also based on Patent Owner’s argument that “the ’494 Patent contemplates an invention that is implemented by ‘hardware *and/or software*’ (meaning it can be implemented by software alone)” *Id.* at 33 (citing Ex. 1012, Abstract, 8:19–25; Ex. 2004 ¶ 50).

In rendering the Decision, we found Patent Owner’s arguments unpersuasive because the ’494 Patent discloses “that it is both the operating system and the application program software module instruction sets executed by the processor that cause the control device to perform control operations.” Dec. 19; *see id.* at 18. In addition, Patent Owner does not direct us to any part of the Decision on Institution stating that the ’698 Patent requires the tasks or software module instruction sets alone to cause the train control device to perform control operations. See Req. Reh’g 13–14 (citing Dec. 18–19).

For the foregoing reasons, we are not persuaded that we misapprehended or overlooked Patent Owner’s arguments in the Preliminary Response. Because we are not persuaded that the Board misapprehended or overlooked Patent Owner’s arguments, we also are not persuaded by Patent Owner’s additional arguments that the Board would have found that the ’494 Patent provides written description support for the challenged claims of the ’698 Patent. See Req. Reh’g. 14.

III. DECISION ON REHEARING

Patent Owner’s request for rehearing is *denied*.

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