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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MAYANK SHARMA and HUBERT THOMPSON LINDSAY

Appeal 2025-000477 Application 17/519,342 Technology Center 2100

Before ALLEN R. MacDONALD, DANIEL J. GALLIGAN, and JOYCE CRAIG, *Administrative Patent Judges*.

GALLIGAN, Administrative Patent Judge.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Schneider Electric Buildings Americas, Inc. Appeal Br. 2.

CLAIMED SUBJECT MATTER

Claims 1, 10, and 16 are independent claims. Claim 1 is reproduced below.

1. A method of implementing a building-related service in a building automation management system (BAMS) comprising a plurality of building automation systems (BASs), the method comprising:

receiving a request to create a building-related service involving dynamic coordination between at least two BASs, the at least two BASs configured to control different functions from one another for a building, the request including a workflow comprising a set of actions and configurations specified by a user that define the building-related service;

generating, from the workflow, system description data;

instantiating, from the system description data, a blueprint for the building-related service, the blueprint defining data exchanges with the at least two BASs, information about target hosts, and any dependencies to be resolved;

parsing the blueprint to resolve any dependencies;

building a deployment plan that includes a sequence of steps and configurations for implementing the building-related service; and

executing the deployment plan to implement the buildingrelated service;

wherein the building-related service is a software program that interacts with one or more building sub-systems associated with a building, and wherein the user is provided with an option to save the building-related service for subsequent reuse to create another building-related service.

Appeal Br. 21 (Claims App.).

REJECTIONS

The Examiner maintains the following rejections:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/Basis
1, 2, 4, 6, 10, 11, 13, 14, 16, 17, 19, 20	103	Park, ² Jacobson ³
3, 7–9, 15, 21	103	Park, Jacobson, Ma ⁴
5, 12, 18	103	Park, Jacobson, Agrusa ⁵

OPINION

Independent Claims 1, 10, and 16

Appellant argues claims 1, 10, and 16 together, focusing on the subject matter recited in claim 1, which is similarly recited in claims 10 and 16. *See* Appeal Br. 9–16.

Claim 1 recites a "workflow comprising a set of actions and configurations specified by a user that define the building-related service." Appeal Br. 21 (Claims App.). Appellant argues "the *process* used by the workflow engine to carry out the *command* in Park cannot be *specified by a user*, as the Office contends via Jacobson," and that the "combination would entirely defeat the purpose of Park." Appeal Br. 11.

The Examiner explains that Jacobson teaches allowing a user to preprogram setting presets, schemes, building rules, and a schedule of events, which could be used by Park's rules and policies. Final Act. 13–14;

² US 2012/0011126 A1, published Jan. 12, 2012.

³ US 2018/0005195 A1, published Jan. 4, 2018.

⁴ US 2020/0234590 A1, published July 23, 2020.

⁵ US 2009/0210814 A1, published Aug. 20, 2009.

Ans. 11. Appellant's conclusory assertion that the process used by Park's workflow engine cannot be specified by a user is unpersuasive of Examiner error. *See* Appeal Br. 11. Appellant's challenges to Park alone further fails to sufficiently show error in the Examiner's obviousness rejection, which is based on the combined teachings of Park and Jacobson. *See* Appeal Br. 11; *In re Keller*, 642 F.2d 413, 426 (CCPA 1981).

In Reply, Appellant argues that the claimed "workflow" refers to a "sequence of actions and configurations" and that Jacobson's scheduling system does not link the scheduling of electronic devices into a sequence that defines a particular building-related service. Reply Br. 7–8.

Appellant's argument that Jacobson does not teach the claimed "workflow" is untimely and deemed waived. *See* 37 C.F.R. § 41.41(b)(2); *In re Hyatt*, 211 F.3d 1367, 1373 (Fed. Cir. 2000) (noting that an argument not first raised in the brief to the Board is waived on appeal). Even considering Appellant's untimely argument, we find it unpersuasive of error. Appellant's construction of "workflow" to require a "sequence of actions and configurations" is unsupported by the claim language, which merely recites "a workflow comprising a set of actions and configurations." *Compare* Reply Br. 8 (emphasis added), *with* Appeal Br. 21 (Claims App.) (emphasis added).

Claim 1 further recites "receiving a request to create a building-related service involving dynamic coordination between at least two BASs, the at least two BASs configured to control different functions from one another for a building." Appeal Br. 21 (Claims App.). Appellant argues Park teaches controlling "two BASs that control the **same** function for a building, namely, two HVAC subsystems." Appeal Br. 12.

The Examiner explains that Park teaches many types of BAS systems, including HVAC systems, lighting systems, and access control systems. Final Act. 7–10; Ans. 13–16. The Examiner further identifies an example in Park of coordinating the building HVAC system with its access control system. Final Act. 9–10 (citing Park ¶ 52); Ans. 14–16 (citing Park ¶ 52). In particular, Park discloses a natural language query stating the following: "Receive priority notifications about temperature increases outside comfort levels in the executive offices area while any of the executives are there." Park ¶ 52. Park discloses that "such a query may be resolved by accessing two subsystems (e.g., an HVAC system and an access control system)." Park ¶ 52.

Appellant's arguments do not sufficiently address Park's coordination between an HVAC system as one BAS and a building's access control system as a second BAS. Appeal Br. 12; *see also* Park ¶ 56 ("Referring now to FIG. 6E, a process 650 for implementing a cross-subsystem command is shown").

In Reply, Appellant asserts that Park "simply correlates the data" but does not "coordinate operation of the HVAC system with operation of the access control system." Reply Br. 9. Appellant's argument that Park does not teach the claimed "dynamic coordination" is untimely and deemed waived. See 37 C.F.R. § 41.41(b)(2); In re Hyatt, 211 F.3d at 1373. Appellant's conclusory assertion is also unpersuasive of error because it merely asserts that the cited passages of Park do not teach or suggest the "dynamic coordination" limitation without sufficient explanation. Reply Br. 9; see 37 C.F.R. § 41.37(c)(1)(iv); In re Lovin, 652 F.3d 1349, 1357 (Fed. Cir. 2011). Appellant does not sufficiently explain why Park's

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teaching of accessing two subsystems, correlating their data, and taking an action is different from the claimed "dynamic coordination." Reply Br. 9.

Claim 1 additionally recites "generating, from the workflow, system description data." Appeal Br. 21 (Claims App). The Examiner finds Park's "looking up of appropriate rules and polices for a specific subsystem" teaches generating the claimed system description data. Final Act. 10 (citing Park ¶ 56, Fig. 6E); Ans. 18. Appellant asserts that the steps of looking up and finding a process as taught by Park do not teach generating data that describes a system. Appeal Br. 13.

The Examiner explains that Park looks up "appropriate rules and policies for a specific subsystem." Ans. 18 (emphasis added). Appellant does not address the Examiner's Answer in its Reply Brief, and Appellant's conclusory assertions in its Appeal Brief are not persuasive of Examiner error because they do not sufficiently explain why Park's data for a "specific subsystem" differs from the claimed "system description data." Appeal Br. 13; *In re Lovin*, 652 F.3d at 1357.

Claim 1 also recites "instantiating, from the system description data, a blueprint for the building-related service, the blueprint defining data exchanges with the at least two BASs, information about target hosts, and any dependencies to be resolved." Appeal Br. 21 (Claims App). Appellant argues Park's fact database cannot be the claimed "blueprint" because it is pre-existing and does not define any dependencies to be resolved. Appeal Br. 13–14. Appellant construes "dependencies" as requiring one BAS to receive input from another, Appeal Br. 14, and construes "instantiating" as "creat[ing] an instance or a realization of that thing." Reply Br. 9–10.

The Examiner explains that Appellant's arguments rely on overly narrow constructions of the terms "dependencies" and "instantiating."

Ans. 18–20. The Examiner finds that Park describes dependencies in the form of queries that "may be resolved by accessing two subsystems," noting that "an action by one BAS is dependent on another BAS," even if one BAS does not receive input from another BAS. Ans. 20 (citing Park ¶ 52). The Examiner further finds that "nothing in the claim recites that such blueprint cannot be pre-existing." Ans. 18.

In its Reply, Appellant relies on extrinsic evidence to argue "instantiating" in computer science refers to "the **creation** of a real instance or particular realization of an abstraction or template, such as a class of objects or a computer process." Reply Br. 9–10 (quoting the "techtarget" website). We are unpersuaded that Appellant's extrinsic evidence supports Appellant's narrow construction or excludes pre-existing blueprints. The Specification explains that "a blueprint may be instantiated from the <u>saved system description</u>," suggesting the blueprint may be instantiated from pre-existing data. Spec. ¶ 87 (emphasis added). Even Appellant's dictionary definition suggests "instantiating" relies on a pre-existing "abstraction or template." Accordingly, Appellant has not shown error in the Examiner's construction of this challenged limitation under its broadest reasonable interpretation.

Claim 1 further recites "building a deployment plan that includes a sequence of steps and configurations for implementing the building-related service" and "executing the deployment plan to implement the building-related service." Appeal Br. 21 (Claims App). Appellant argues the Examiner merged these two "limitations into a single step of executing the Park *process*." Appeal Br. 14–15; Reply Br. 10–11.

The Examiner explains that Park's generation of subsystem-specific commands teaches "building a deployment plan" and that providing those Application 17/519,342

commands to a subsystem teaches "executing the deployment plan." Final Act. 12; Ans. 24–25. The Examiner maps these two claim limitations to two separate teachings in Park. Accordingly, Appellant has not sufficiently shown that the Examiner ignored either claim limitation or erred in mapping them to Park.

Appellant argues that the Examiner has not shown a motivation to combine Park and Jacobson because there is no suggestion that a communication system in Park would benefit from Jacobson's individualized scheduling system. Appeal Br. 15–16. The Examiner finds that a person of ordinary skill would have been motivated to combine the teachings of Park and Jacobson to "allow for creating more individualized automated scheduled events." Final Act. 14–15 (citing Jacobson ¶¶ 3, 5, 200); Ans. 26. Jacobson explains that its invention "improve[s] understanding and efficiency" and "provide[s] users with intuitive and easily comprehensible programming tools to build scheduled events of a building automation system." Jacobson ¶ 200.

Other than characterizing Park as a *communication* system and Jacobson as a *scheduling* system, Appellant has not sufficiently explained why the teachings of Jacobson are incompatible with Park. The Examiner finds, and we agree, that Appellant does "not provide any evidentiary support as to why both systems are not combinable other than the naming scheme of both systems." Ans. 26. Accordingly, Appellant has not sufficiently shown error in the Examiner's rationale to combine the teachings of Park and Jacobson.

In view of the foregoing, we sustain the Examiner's rejection of claims 1, 10, and 16.

Claims 8 and 9

Claim 8 recites "receiving from a user, via a graphical user interface of a building automation management system tool suite, the workflow for the frictionless entry/exit." Appeal Br. 22 (Claims App.). Appellant argues Ma does not teach receiving a workflow *from a user* or frictionless entry/exit into a *building*. Appeal Br. 18.

Appellant does not sufficiently address the Examiner's finding that Park, not Ma, teaches receiving a workflow from a user. Final Act. 38 (citing Park ¶ 32). As to the "frictionless entry/exit" limitation, Appellant's assertion that Ma is limited to parking lots fails to persuasively address the Examiner's finding that Ma also facilities access to buildings. *See* Final Act. 37; Ma ¶ 75 (describing embodiments that "facilitate[] frictionless access to a campus, building, parking lot, and/or parking space" (emphasis added)).

Claim 8 also recites "dynamically identifying, based on information in the workflow, the at least two BASs and the set of operations and/or services involved in executing the dynamic scheduling service to configure the frictionless entry/exit." Appeal Br. 22 (Claims App). Appellant asserts that Ma does not teach "dynamically identifying at least two BASs involved in the frictionless entry/exit" and that the only interaction between Ma's parking lot system and building management system involves emissions monitoring. Appeal Br. 18–19 (citing Ma ¶ 76, Fig. 4B).

Beyond an emissions monitoring system, the Examiner finds that Ma teaches dynamically identifying other BASs including a security system, a lighting system, and a transportation system. Final Act. 39–40 (citing Ma ¶¶ 2, 76); Ans. 29–32 (citing Ma ¶¶ 2, 76,81, 91); see Ma ¶¶ 2 (disclosing that a building management system (BMS) "can include, for example, an HVAC system, a security system, a lighting system, a fire alerting system,

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and any other system that is capable of managing building functions or devices, or any combination thereof"), 91 ("For example, smart parking lot system 1100 may control lights within smart parking lot 1110 to guide users to an exit in the event of an emergency. As a further example, smart parking lot system 1100 may control lights to illuminate a parking space assigned to an individual."). Appellant's arguments are unpersuasive of Examiner error because they do not sufficiently address these findings by the Examiner.

Claim 9 recites that the two BASs comprise

at least two of (a) an access control system to authenticate a visitor and provide access to one or more areas of a building, (b) HVAC system to control environmental conditions to optimize comfort and/or air quality[,] (c) a light and blinds control system to control lighting and operation of blinds, (d) a transportation system or (e) external service(s)/system(s).

Appeal Br. 22 (Claims App.). Appellant asserts that Ma does not teach at least two of the enumerated BASs. Appeal Br. 19. As explained above, Appellant does not persuasive address the Examiner's findings that Ma teaches lighting system and transportation system BASs. Ans. 31–32 (citing Ma ¶¶ 2, 76, 81, 91); see Ma ¶ 81 (disclosing "lighting control" and "transportation management").

Appellant argues the Examiner does not provide a rationale to combine Park, Jacobson, and Ma because the Examiner "does not specify which *user experience*" would be improved by the teachings of Ma. Appeal Br. 19–20. Appellant's assertions are unpersuasive of Examiner error as the Examiner identifies multiple rationales for combining the teachings of the prior art with evidentiary support from Ma itself. Final Act. 37; Ans. 33–34 (citing Ma ¶¶ 75, 114). Ma describes improved user experiences for building visitors and more efficient building energy usage. Ma ¶¶ 75, 114.

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In view of the foregoing, we sustain the Examiner's rejections of claims 8 and 9.

Remaining Claims

Appellant does not separately argue the rejections of the remaining claims (2–7, 11–15, and 17–21); therefore, we sustain the rejections of these claims.

CONCLUSION

We affirm the Examiner's obviousness rejections of claims 1–21.

DECISION SUMMARY

In summary:

Claim(s)	35 U.S.C.	Reference(s)/Basis	Affirmed	Reversed
Rejected	§			
1, 2, 4, 6,	103	Park, Jacobson	1, 2, 4, 6,	
10, 11, 13,			10, 11, 13,	
14, 16, 17,			14, 16, 17,	
19, 20			19, 20	
3, 7–9, 15,	103	Park, Jacobson, Ma	3, 7–9, 15,	
21			21	
5, 12, 18	103	Park, Jacobson, Agrusa	5, 12, 18	
Overall			1–21	
Outcome				

TIME PERIOD FOR RESPONSE

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

<u>AFFIRMED</u>