UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ROCKWELL AUTOMATION, INC., ROCKWELL AUTOMATION
TECHNOLOGIES, INC.,
Petitioners,

v.

AUTOMATION MIDDLEWARE SOLUTIONS, INC.,
Patent Owner.

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Case IPR2017-00049
Patent 8,073,557 B2

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Before THOMAS L. GIANNETTI, JENNIFER S. BISK, and
GREGG I. ANDERSON, *Administrative Patent Judges*.

ANDERSON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Rockwell Automation, Inc. and Rockwell Automation Technologies, Inc. ("Petitioner") filed a Petition (Paper 1 ("Pet.")) pursuant to 35 U.S.C. §§ 311–19 to institute an *inter partes* review of claims 16, 19–24, and 27–29 ("the challenged claims") of U.S. Patent No. 8,073,557 (Ex. 1001 ("the '557 patent")). Pet. 1. Automation Middleware Solutions, Inc. ("Patent Owner")[1] filed a Preliminary Response (Paper 10, "Prelim. Resp.").

We have authority under 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim. *See* 37 C.F.R. § 42.4(a). We are not persuaded there is a reasonable likelihood that Petitioner would prevail in showing that at least one of the challenged claims is unpatentable and decline to institute an *inter partes* review of the challenged claims.

A. Related Proceedings

Petitioner advises us that the '557 patent is asserted five cases pending in the Eastern District of Texas: *Automation Middleware Solutions, Inc. v. Rockwell Automation, Inc.*, 2:15-cv-01269; *Automation Middleware Solutions, Inc. v. Invensys Systems, Inc.*, 2:15-cv-00898; *Automation Middleware Solutions, Inc. v. Emerson Electric Company*, 2:15-cv-01266; *Automation Middleware Solutions, Inc. v. Yaskawa America, Inc.*, 2:15-cv-01771; and *Automation Middleware Solutions, Inc. v. Kollmorgen Corporation*, 2:15-cv-01539. Pet. 1. Patent Owner advises us of another two related matters pending in the Eastern District of Texas: *Automation Middleware Solutions, Inc. v. Mitsubishi Electric Corp., et al.*, 2:15-CV-

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[1] Wi-LAN Technologies Inc. and Wi-LAN Inc. are also identified by Patent Owner as real parties-in-interest. Paper 9, 2.

01982 and *Automation Middleware Solutions, Inc. v. Yokogawa Electric Corporation, et al.*, 2:15-cv-899. Paper 4, 2. We are further advised that Petitioner has filed two petitions for *inter partes* review of two other patents of Patent Owner, IPR2017-00023 challenging US Patent No. 6,513,048 ("the '023 IPR") and IPR2017-00048 ("the '048 IPR")[2] challenging US Patent No. 6,516,236 (the "'236 patent).[3] Pet. 2, Paper 4, 2.

B. The '557 Patent (Ex. 1001)

The '557 patent describes "interface software that facilitates the creation of hardware independent motion control software" for moving objects. Ex. 1001, col. 1, ll. 49–52. In particular, the patent describes a high-level motion control application programming interface ("API") made of functions that are correlated with driver functions associated with controlling a mechanical system that generates movement based on a control signal. *See generally id.* at col. 1, l. 61–col. 2, l. 33; col. 3, l. 66–col. 4, l. 41. The invention isolates the application program from the complexity of hardware devices and "[t]he user 24 thus need know nothing about the hardware specific command language or communication protocol associated with each of these devices." *Id.* at col. 7, ll. 46–48.

As described in the '557 patent, the prior art includes a number of low-level software programs for directly programming individual motion control devices, or for aiding in the development of systems containing a number of motion control devices. Ex. 1001, col. 2, ll. 33–42. While

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[2] We declined to institute trial on the '023 and '048 IPRs. '023 IPR, Paper 15, '048 IPR, Paper 13.

[3] The '557 patent is a continuation-in-part of the '236 patent. Ex. 1001, (63).

providing complete control over the hardware, these low-level programs are highly hardware-dependent. *Id.* The '557 patent discusses an existing software model, referred to as "WOSA," that isolates application programmers from the complexities of programming to different service providers by providing an application programming interface layer that is hardware-independent. *Id.* at col. 3, ll. 27–37. However, the patent states, "[t]he WOSA model has no relation to motion control devices." *Id.* at col. 3, ll. 36–37.

In describing the invention, the '557 patent discloses a programming interface consisting of "component functions" containing code that relates to driver functions, which in turn are associated with, or contain code for, implementing the motion steps on a given motion control device. Ex. 1001, col. 4, ll. 29–60. The component functions support both core driver functions and extended driver functions. *Id.* at col. 4, ll. 61–67. Component functions can emulate extended driver functions not supported by a particular device by using a combination of core driver functions. *Id.* at col. 5, ll. 18–59.

"Core driver functions are associated with primitive operations, while extended driver functions are associated with non-primitive operations." Ex. 1001, col. 8, ll. 33–36. "Primitive operations are operations that are necessary for motion control and cannot be simulated using a combination of other motion control operations." *Id.* at col. 8, ll. 18–21. "Non-primitive

operations are motion control operations that do not meet the definition of a [sic] primitive operations." *Id.* at col. 8, ll. 24–26.

C. Illustrative Claim

Of the challenged claims 16, 19–24, and 27–29, claim 16 is the only independent claim. Claims 19–24 and 27–29 depend directly or indirectly from claim 16. Claim 16 follows:

16. A motion control system, comprising:

an application program comprising at least one call to at least one component function;

a plurality of motion control devices, where

a plurality of unique controller languages are associated with the plurality of motion control devices,

each controller language comprises at least some control commands for processing information associated with motion control devices, and

each of the motion control devices comprises

a controller capable of generating electrical signals based on at least one control command of the controller language associated with the motion control device, and

a mechanical system capable of causing a motion control operation based on electrical signals generated by the controller,

a set of software drivers each comprising driver code, where

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