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 IPR2017-00048
Patent 6,516,236 B1

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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 2 ("Pet.")) pursuant to 35 U.S.C. §§ 311–19 to institute an *inter partes* review of claims 1–3 ("the challenged claims") of U.S. Patent No. 6,516,236 (Ex. 1001 ("the '236 patent")). Pet. 2. Automation Middleware Solutions, Inc. ("Patent Owner"[1]) filed a Preliminary Response (Paper 11 ("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 '236 Patent was the subject of a previous *inter partes* review, *ABB Inc. v. Roy-G-Biv Corporation*, IPR2013-00062 (PTAB) ("the '062 IPR")). Pet. 3. ABB was the petitioner in the '062 IPR, Petitioner here was not a party to the '062 IPR, and the '236 patent was subsequently assigned to Patent Owner. *Id.* The Board entered a Final Written Decision in the '062 IPR on April 11, 2014. '062 IPR, Paper 84. The Board determined that ABB failed to prove the claims were unpatentable. *Id.* at 27–28.

Patent Owner advises us that the '236 patent was the subject of an *inter partes* reexamination, Control No. 95/000396, in which all claims were

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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 8, 2.

confirmed. Prelim. Resp. 21 (citing Ex. 2013[2]). In addition, Patent Owner identifies several pending civil actions in the Eastern District of Texas in which the '236 patent is being asserted. Paper 8, 2.

    B. The '236 Patent (Ex. 1001)

The '236 patent relates generally to a system that facilitates the creation of hardware-independent motion control software. Ex. 1001, col. 1, ll. 13–16. In particular, the patent describes a high-level motion control application programming interface ("API") correlated with driver functions associated with controlling a mechanical system that generates movement based on a control signal. *See generally id.* at col. 1, ll. 5–49. The object of the invention is to isolate the application programmer from the complexity of hardware devices, which often have a manufacturer-specific motion control command language and functionality that is highly hardware-dependent. *See generally id.* at col. 3, ll. 24–42. At the same time, the API allows the programmer to access base motion operations of the hardware device. *Id.*

As described in the '236 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. 1, l. 55–col. 2, l. 34. While providing complete control over the hardware, these low-level programs are highly hardware-dependent. *Id.* The '236 patent discusses an existing software model, referred to as "WOSA," that isolates application programmers from the complexities of programming to different service

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[2] Action Closing Prosecution and Information Disclosure Statement, Reexamination Control No. 95/000,396.

providers through an application programming interface layer that is hardware-independent. *Id.* at col. 2, ll. 55–67. However, the patent states, "[t]he WOSA model has no relation to motion control devices." *Id.* at col. 2, ll. 66–67.

In describing the invention, the '236 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. *Id.* at col. 3, ll. 56–66. The component functions support both core driver functions—those functions that must be supported by all software drivers—and extended driver functions—those functions that may, or may not be, supported by a particular software driver. *Id.* at col. 4, ll. 3–13. When feasible, component functions can emulate extended driver functions not supported by a particular device by using a combination of core driver functions. *Id.* at col. 4, ll. 25–44.

"Core driver functions are associated with primitive operations, while extended driver functions are associated with non-primitive operations." Ex. 1001, col. 7, ll. 43–46. "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. 7, ll. 29–32. "Non-primitive operations are motion control operations that do not meet the definition of a [sic] primitive operations." *Id.* at col. 7, ll. 34–36.

C. Illustrative Claim

Of the challenged claims, claim 1 is the only independent claim. Claims 2–3 depend directly or indirectly from claim 1. Claim 1 follows:

1.   A system for generating a sequence of control commands for controlling a selected motion control device selected from a group of supported motion control devices, comprising:

a set of motion control operations, where each motion control operation is either a primitive operation the implementation of which is required to operate motion control devices and cannot be simulated using other motion control operations or a non-primitive operation that does not meet the definition of a primitive operation;

a core set of core driver functions, where each core driver function is associated with one of the primitive operations;
an extended set of extended driver functions, where each extended driver function is associated with one of the non-primitive operations;

a set of component functions;

component code associated with each of the component functions, where the component code associates at least some of the component functions with at least some of the driver functions;

a set of software drivers, where

each software driver is associated with one motion control device in the group of supported motion control devices,

each software driver comprises driver code for implementing the motion control operations associated with at least some of the driver functions, and

one of the software drivers in the set of software drivers is a selected software driver, where the selected software driver is the software driver associated with the selected motion control device;

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