571-272-7822

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROCKWELL AUTOMATION, INC. AND ROCKWELL AUTOMATION TECHNOLOGIES, INC., Petitioner,

v.

AUTOMATION MIDDLEWARE SOLUTIONS, INC., Patent Owner.

Case IPR2017-00023 Patent 6,513,058 B2

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

GIANNETTI, 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. (collectively, "Petitioner" or "Rockwell") filed a Petition (Paper 2, "Pet.") seeking *inter partes* review of claims 1–5 (all claims) of U.S. Patent No. 6,513,058 B2 (Ex. 1001, "the '058 patent") pursuant to 35 U.S.C. §§ 311–319. Automation Middleware Solutions, Inc. ("Patent Owner" or "AMS") filed a Patent Owner Preliminary Response (Paper 12, "Prelim. Resp.").

We have authority to determine whether to institute a trial under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). An *inter partes* review may be instituted only if "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a).

We are persuaded there is not a reasonable likelihood that Petitioner would prevail in showing that the challenged claims are unpatentable. Pursuant to 35 U.S.C. § 314, we do not institute an *inter partes* review as to claims 1–5 of the '058 patent.

II. BACKGROUND

A. The '058 Patent

The '058 patent is titled "Distribution of Motion Control Commands Over a Network." The patent relates generally to a system that facilitates the creation of hardware-independent motion control software. Ex, 1001, col. 1, ll. 18–21. The Abstract describes the subject matter as follows:



A system for allowing an application program to communicate with any one of a group of supported hardware devices comprising a software system operating on at least one workstation and a network communications protocol. The software system includes a control command generating module for generating control commands based on component functions of an application program, component code associated with the component functions, and the driver code associated with software drivers associated with the hardware devices. The network communication protocol allows the control commands to be communicated from the control command generating module to at least one of the supported hardware devices over the network.

Ex. 1001, Abstract.

The '058 patent describes a special protocol to facilitate communication with underlying motion control hardware in a manner that is independent of the specific communication protocols defined by supported motion control hardware devices. *Id.* at col. 4, ll. 1–8. As described in the '058 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. *Id.* at col. 2, ll. 1–9. While providing complete control over the hardware, these low-level programs are highly hardware-dependent. *Id.* The object of the invention is, therefore, to isolate the application programmer from the complexity of hardware devices in existence. *Id.* at col. 3, ll. 32–35.

The '058 patent also 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.



13–24. However, the patent states, "[t]he WOSA model has no relation to motion control devices." *Id.* at col. 3, ll. 24–25.

The '058 patent discloses an application programming interface ("API") consisting of "component functions" containing component code that associates component and driver functions. *Id.* at col. 7, ll. 15–25. The drivers in turn are associated with motion control devices. *Id.* at col. 7, ll. 35–37. The drivers dictate how to generate control commands for controlling the associated motion control device to perform the motion control operations. *Id.* at col. 7, ll. 37–41. Thus, the user develops an application program comprising a sequence of component functions arranged to define the motion control operations necessary to control a motion control device in a desired manner. *Id.* at col. 7, ll. 53–58.

Motion control operations in the patent may either be primitive operations or non-primitive operations. Core driver functions are associated with primitive operations, while extended driver functions are associated with non-primitive operations. *Id.* at col. 7, ll. 1–7. The '058 patent states: "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. 6, ll. 56–60.

B. Related Matters

The '058 patent was previously before the Board in IPR2013-00063 ("'063 IPR"). Pet. 3. The petition in that case was filed by another party, ABB. Prelim. Resp. 16. The Board entered a Final Written Decision in the '063 IPR on May 16, 2014. '063 IPR, Paper 71. The Board determined that ABB failed to prove the claims were unpatentable. *Id.* at 14. The '058 patent was also the subject of an *inter partes* reexamination in which all



claims were confirmed. Prelim. Resp. 15–16. In addition the parties identify several pending civil actions in the Eastern District of Texas in which the '058 patent is being asserted. Pet. 1; Paper 5.

C. Illustrative Claim

Claims 1, 3, and 4 are independent. Claim 1 follows:

1. A system for allowing an application program to communicate with any one of a group of supported hardware devices, the system comprising:

a software system operating on at least one workstation, the software system comprising

at least one application program comprising a set of component functions defining a desired motion sequence, the desired motion sequence being comprised of primitive operations that are necessary to define the desired motion sequence and non-primitive operations that may be simulated using a combination of primitive operations,

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 functions is associated with one of the non-primitive operations,

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 of the hardware devices and comprises driver code for implementing the driver functions, and

a control command generating module for generating control commands based on the component functions of the application program, the component code associated with the component functions, and the driver code associated with the software drivers; and



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