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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ROCKWELL AUTOMATION, INC. ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Petitioners

v.

AUTOMATION MIDDLEWARE SOLUTIONS, INC. Patent Owner

Patent No. 8,073,557 Issue Date: December 6, 2011 Title: MOTION CONTROL SYSTEMS

Inter Partes Review No. 2017-00049

PETITION FOR *INTER PARTES* REVIEW UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ*.

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	C.	Ground 1: Claims 16, 19-22, and 27-28 Are Unpatentable as Obvious under 35 U.S.C. §103 over Cashin in View of ODBC Programmer's Guide, and the GML References					
		1.	Guid	in in combination with the ODBC Programmer's e and the GML References disclose every limitation e elements of claim 1640			
			a.	[16a] "A motion control system, comprising:"40			
			b.	[16b] "an application program comprising at least one call to at least one component function"40			
			C.	[16c] "a plurality of motion control devices, where a plurality of unique motion 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 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"42			

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d.	[16d] "a set of software drivers each comprising driver code, where"
e.	[16e] "each software driver is associated with at least one of the plurality of motion controller languages, and"
f.	[16f] "each software driver exposes a service provider interface defining a set of driver functions, where the driver functions are independent of the plurality of controller languages"
g.	[16g] "at least one driver function is an extended driver function that is associated with a non- primitive motion operation that can be performed using at least one primitive motion operation, where the at least one primitive motion operation cannot be performed using a combination of primitive or non-primitive motion operations"50
h.	[16h] "at least one driver function is a core driver function that is associated with a primitive motion operation"
i.	[16i] "the driver code of at least one software driver associates at least one driver function with at least one control command of the at least one motion controller language associated with at least one of the software drivers, and"
j.	[16j] "at least one selected software driver is associated with at least one selected motion control device"
k.	[16k] "a motion component comprising component code, where the motion component exposes an application programming interface comprising a set of component functions, where"

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	1.	[161] "each component function is implemented by component code, and the component code associates at least one of the component functions with at least one of the driver functions"			
	m.	[16m] "the at least one selected software driver generates at least one control command in the controller language associated with the at least one selected motion control device based on the calls to component functions of the application program, the component code, and the driver code of the at least one selected software driver."			
2.	Cashin in combination with the ODBC Programmer's Guide and the GML References disclose every limitation of the elements of claim 19				
	a.	[19a] "A motion control system as recited in claim 16, in which the component code emulates at least one extended driver function by associating at least one component function with a plurality of the core driver functions;"			
	b.	[19b] "the component code implements at least one extended driver function by associating at least one component function with one of the extended driver functions; and"			
	[19c]	"the component code implements at least one core driver function by associating at least one component function with one of the core driver functions."			
3.	Cashin in combination with the ODBC Programmer's Guide and the GML References disclose every limitation of the elements of claim 20				
	a.	[20a] "A motion control system as recited in claim 16, in which the application program further			

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