

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Rockwell Technologies, LLC	06/29/2001
RECEIVING PARTY DATA	
Name:	Rockwell Automation Technologies, Inc.
Street Address:	1 Allen-Bradley Drive
City:	Mayfield Heights
State/Country:	OHIO
Postal Code:	44124
PROPERTY NUMBERS Total: 1	
Property Type	Number
Patent Number:	7002561
CORRESPONDENCE DATA	
Fax Number:	3127758100
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Address Line 4:	Chicago, ILLINOIS 60661
ATTORNEY DOCKET NUMBER:	26218US01
NAME OF SUBMITTER:	Peter J. McAndrews
<p>Total Attachments: 70 source=Assignment from Rockwell Technologies, LLC to RATI#page1.tif source=Assignment from Rockwell Technologies, LLC to RATI#page2.tif source=Assignment from Rockwell Technologies, LLC to RATI#page3.tif source=Assignment from Rockwell Technologies, LLC to RATI#page4.tif</p>	

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ASSIGNMENT

(INVENTIONS, PATENT APPLICATIONS AND PATENTS)

WHEREAS, Rockwell Technologies, LLC, a limited liability company organized and existing under the laws of the State of Delaware ("Assignor"), desires to assign to Rockwell Automation Technologies, Inc., a corporation organized and existing under the laws of the State of Ohio and as of the time of this Assignment a wholly-owned subsidiary of Assignor ("Assignee"), Assignor's entire right, title and interest in and to the assets identified on Schedule 1 hereto (the "Contributed Inventions, Patent Applications and Patents"), pursuant to the Distribution Agreement dated as of June 29, 2001 (the "Distribution Agreement") by and among Rockwell International Corporation, a Delaware corporation, Rockwell Collins, Inc., a Delaware corporation, and Rockwell Scientific Company LLC, a Delaware limited liability company; and

WHEREAS, Assignor is the owner of, or has rights in, the Contributed Inventions, Patent Applications and Patents.

NOW, THEREFORE, in consideration of the transactions contemplated by the Distribution Agreement and for other good and valuable consideration delivered by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby sell, grant, assign, convey and transfer unto Assignee or its designee, Assignor's entire right, title and interest in and to the Contributed Inventions, Patent Applications and Patents, including any applications or patents arising therefrom or any continuations or divisions thereof, and any and all re-examinations or reissues thereof and the subject matter of any and all claims which may be obtained in every such patent, the same to be held and enjoyed by Assignee or its designee, its

successors, assigns or other legal representatives, for its own use and advantage, and for the use and advantage of its successors, assigns or other legal representatives, to the end of the term or terms for which patents are or may be granted, reissued or re-examined, as fully and entirely as the same would have been held and enjoyed by Assignor had this Assignment not been made, including all rights to profits and damage by reason of past infringement of the Contributed Inventions, Patent Applications and Patents by any party or parties, with the right to sue and collect the same for its own use and benefit, and for the use and benefit of its successors, assigns or other legal representatives.


Assignor hereby appoints Assignee its attorney-in-fact to act in Assignor's name, place and stead to execute, deliver and record any document or instrument of assignment required in any country in which any of the Contributed Inventions, Patent Applications and Patents are pending or issued, granting or confirming the rights granted herein, but only to the extent of those rights granted herein in connection with the Contributed Inventions, Patent Applications and Patents.

The provisions of Section 3.11 of the Distribution Agreement are incorporated herein by reference. To the extent that any provision of this Assignment is inconsistent with the Distribution Agreement, the provisions of the Distribution Agreement shall control.

IN WITNESS WHEREOF, Assignor has caused this Assignment to be duly executed on this 28th day of June, 2001.

ROCKWELL TECHNOLOGIES, LLC

By: _____


Name: E. H. Izen

Title: President & Secretary

ROCKWELL TECHNOLOGIES, LLC (A-B) - Patents

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
AU	564544	21-Jan-1988	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
AU	600853	11-Dec-1990	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
AU	613788	03-Dec-1991	MOTOR CONTROLLER WITH OPTICAL SCR'S
AU	615249	24-Jan-1992	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE
AU	626474	24-Nov-1992	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
BR	8804857	25-Apr-1995	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
BR	8901349-2	23-Oct-1990	PROGRAMMABLE CONTROLLER WITH A DUAL INTERMODULE MESSAGE SYSTEM
BR	9002286	01-Feb-1996	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
BR	PI8407271-7	25-Sep-1990	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
CA	1102380	02-Jun-1981	TIME DELAY SWITCH MECHANISM
CA	1103306	16-Jun-1981	HYBRID MOTOR STARTER
CA	1103364	16-Jun-1981	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
CA	1263895	12-Dec-1989	PRINTED CIRCUIT BOARD CHASSIS WITH POWER INTERLOCK
CA	1263973	19-Dec-1989	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
CA	1265855	13-Feb-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
CA	1265872	13-Feb-1990	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
CA	1270542	19-Jun-1990	METHOD AND APPARATUS FOR CORRECTING RESOLVER ERRORS
CA	1277704	11-Dec-1990	CROSS COUPLED CURRENT REGULATOR
CA	1279406	22-Jan-1991	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
CA	1284349	21-May-1991	FLUX PROFILE CONTROL FOR STARTUP OF AN INDUCTION MOTOR
CA	1284370	21-May-1991	PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
CA	1287898	20-Aug-1991	BRUSHLESS ROTARY POSITION TRANSDUCER
CA	1288177	27-Aug-1991	MODULAR SMOKE DETECTOR
CA	1288523	03-Sep-1991	DATABASE ACCESS MACHINE FOR FACTORY AUTOMATION NETWORK
CA	1288872	10-Sep-1991	PROGRAMMABLE CONTROLLER WITH I/O EXPANSION MODULE LOCATED IN ONE OF I/O MODULE POSITIONS FOR COMMUNICATION WITH OUTSIDE I/O MODULES
CA	1294669	21-Jan-1992	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
CA	1295659	11-Feb-1992	METHOD FOR STOPPING AN ELECTRIC MOTOR
CA	1295660	11-Feb-1992	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
CA	1301830	26-May-1992	OPEN LOOP MOTOR CONTROL WITH BOTH VOLTAGE AND CURRENT REGULATION
CA	1301940	26-May-1992	DISTRIBUTED PROCESSING IN A CLUSTER OF INDUSTRIAL CONTROLS LINKED BY A COMMUNICATIONS NETWORK
CA	1304122	23-Jun-1992	MOTOR CONTROLLER WITH OPTICAL SCR'S
CA	1310387	17-Nov-1992	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS
CA	1318034	18-May-1993	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
CA	1318406	25-May-1993	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
CA	1318979	08-Jun-1993	METHOD AND CIRCUIT FOR AUTOMATICALLY COMMUNICATING IN TWO
CA	1319271	22-Jun-1993	PROGRAMMABLE CONTROLLER WITH FIBER OPTIC INPUT/OUTPUT MODULE
CA	1324171	09-Nov-1993	ENCLOSURE SEAL
CA	1326070	11-Jan-1994	VIDEO IMAGE PROCESSING SYSTEM
CA	1326897	08-Feb-1994	PROGRAMMABLE CONTROLLER MODULE
CA	1335415	02-May-1995	TORQUE MEASURING APPARATUS
CA	2002658	11-Jan-2000	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
CA	2013872	11-Jan-2000	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
CA	2017074	12-Mar-1996	FREQUENCY CONTROL BASED ON SENSING VOLTAGE FED TO AN INDUCTION MOTOR
CA	2017458	10-Oct-2000	INTELLIGENT NETWORK INTERFACE CIRCUIT
CA	2028476	11-Jan-2000	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
CA	2029310	17-Oct-2000	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
CA	2030604	13-Feb-2001	MASTER SLAVE INDUSTRIAL TOKEN PASSING NETWORK
CA	2031951	31-Oct-2000	CONFIGURABLE COMMUNICATION INTERFACE MODULE FOR A PROGRAMMABLE CONTROLLER
CA	2036026	08-Apr-1997	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
CA	2039280	29-Aug-2000	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
CA	2044075	13-Feb-2001	SLIP CONTROL BASED ON SENSING VOLTAGE FED TO AN INDUCTION MOTOR
CA	2050223	29-Oct-1995	OVERLOAD CURRENT PROTECTION APPARATUS
CA	2053126	30-Jan-2001	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
CA	984517	24-Feb-1976	PROGRAMMABLE MAGNETICS FOR A NUMERICAL CONTROL SYSTEM
CH	0 453 632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
CH	0518244	02-Aug-1995	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
CH	0542205	12-Aug-1998	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
DE	0471354	29-Dec-1997	INTELLIGENT NETWORK INTERFACE CIRCUIT
DE	0512372	29-Dec-1997	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
DE	2658313.1	02-Apr-1987	PROGRAMMABLE CONTROLLER WITH REMOTE I/O INTERFACE RACKS
DE	2713253.2	12-Jan-1989	CONTACT HISTOGRAM FOR DIGITAL CONTROL SYSTEM
DE	2743492.0	15-Mar-1990	INDUSTRIAL CONTROL PROCESSOR SYSTEM
DE	2817536.2	30-Jan-1992	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
DE	2850093.8	22-May-1986	CIRCUIT BOARD ASSEMBLY WITH DISCONNECT ARM
DE	2914720.4	23-Jun-1989	TIME DELAY SWITCH MECHANISM
DE	2950979	16-Nov-1995	MULTIPROCESSOR NUMERICAL CONTROL SYSTEM
DE	2954696	23-Nov-1995	MULTIPROCESSOR NUMERICAL CONTROL SYSTEM
DE	3043894.9	28-Dec-1989	INDUSTRIAL COMMUNICATIONS NETWORK WITH MASTERSHIP DETERMINED BY NEED
DE	3520643.8	03-Dec-1992	METHOD AND APPARATUS FOR CORRECTING RESOLVER ERRORS
DE	3901260	16-Apr-1998	OPERATING HANDLE FOR AN ENCLOSED ELECTRIC SWITCH
DE	3924384	12-Jun-1997	PROGRAMMABLE CONTROLLER MODULE RACK WITH A RELATIVE RACK SLOT ADDRESSING MECHANISM
DE	3932005	18-Jan-2001	PROGRAMMABLE CONTROLLER MODULE
DE	69021186.4	26-Jul-1995	MASTER SLAVE INDUSTRIAL TOKEN PASSING NETWORK
DE	69021187.2	26-Jul-1995	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
DE	69021195.3	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
DE	69116954308	26-Feb-1996	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
DE	69125645.4	20-Nov-1997	SELECTABLE CONTROL FUNCTION INJECTION MOLDING
DE	69226606	25-Mar-1999	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
DE	89103362.3	23-Aug-1995	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
DE	P3467460.8	11-Nov-1987	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
DE	P3584795.6	04-Dec-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
DE	P3675849.3	28-Nov-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
DE	P3683224.3	02-Jan-1992	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
DE	P3688342.5	28-Apr-1993	CROSS COUPLED CURRENT REGULATOR
DE	P3689635.7	09-Feb-1994	INDUSTRIALIZED TOKEN PASSING NETWORK

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Country	Patent Number	Issue Date	Title
DE	P3750647.1	12-Oct-1994	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
DE	P3854594.2	18-Oct-1995	PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
DE	P3885226.8	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
DE	P68915188.8	11-May-1994	METHOD FOR STOPPING AN ELECTRIC MOTOR
DE	P68920084.6	21-Dec-1994	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
DE	P69005883.7	12-Jan-1994	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
DE	P69007138.8	09-Mar-1994	MOTOR CONTROLLER WITH OPTICAL SCR'S
DE	P69016115.8	18-Jan-1995	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
EP	0 453 971	19-Jun-1996	ZERO MARK FOR OPTICAL ENCODER USING STATOR MASK PATTERNS AND ROTOR PATTERNS
EP	0 564 854	27-Oct-1999	NUMERICAL CONTROL SYSTEM FOR IRREGULAR POCKET MILLING
EP	0 586 813	05-Aug-1998	PROGRAMMABLE CONTROLLER WITH LADDER DIAGRAM MACRO INSTRUCTIONS
EP	0 718 727	09-Feb-2000	METHOD OF PROGRAMMING INDUSTRIAL CONTROLLERS WITH HIGHLY DISTRIBUTED PROCESSING (HDC II Compiler, etc.)
EP	0166402	04-Dec-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
EP	0202603	28-Apr-1993	CROSS COUPLED CURRENT REGULATOR
EP	0210497	27-Nov-1991	DISC DRIVE ISOLATION SYSTEM
EP	0213606	28-Nov-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
EP	0215343	02-Jan-1992	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
EP	0256463	12-Oct-1994	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
EP	0304023	02-Oct-1996	BIT ORIENTED COMMUNICATIONS NETWORK
EP	0304880	18-Oct-1995	PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
EP	0310131	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
EP	0311007	09-Mar-1994	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS
EP	0331060	23-Aug-1995	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
EP	0332127	17-May-1995	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE
EP	0332128	11-May-1994	METHOD FOR STOPPING AN ELECTRIC MOTOR
EP	0352683	21-Dec-1994	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
EP	0355861	09-Feb-1994	INDUSTRIALIZED TOKEN PASSING NETWORK
EP	0381094	09-Mar-1994	MOTOR CONTROLLER WITH OPTICAL SCR'S

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
EP	0394955	12-Jan-1994	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
EP	0408045	18-Jan-1995	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
EP	0435037	26-Jul-1995	MASTER SLAVE INDUSTRIAL TOKEN PASSING NETWORK
EP	0435038	26-Jul-1995	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
EP	0446936	13-Dec-1995	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
EP	0453632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
EP	0455237	20-Mar-1996	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
EP	0461626	18-Oct-1995	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
EP	0461627	20-Sep-1995	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
EP	0471354	29-Dec-1997	INTELLIGENT NETWORK INTERFACE CIRCUIT
EP	0473086	07-Feb-1996	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
EP	0477959	30-Dec-1997	OVERLOAD CURRENT PROTECTION APPARATUS
EP	0512372	29-Dec-1997	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
EP	0518244	02-Aug-1995	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
EP	0531435	28-Aug-1996	METHODS FOR SET UP AND PROGRAMMING OF MACHINE AND PROCESS CONTROLLERS
EP	0542205	12-Aug-1998	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
EP	0559648	24-Mar-1999	THREE PHASE POWER ANALYZER
EP	0588005	20-Oct-1999	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
EP	0606 015	15-Sep-1999	PHOTOELECTRIC CONTROL UNIT ADAPTED FOR DETERMINING ITS OWN OPERATING MARGIN
EP	0804054	29-Oct-1997	INSULATED SURFACE MOUNT CIRCUIT BOARD CONSTRUCTION
FI	97427	10-Dec-1996	OPERATING HANDLE FOR AN ENCLOSED ELECTRIC SWITCH
FR			EDGE TERMINATION FOR AN ELECTRICAL CIRCUIT DEVICE
FR	0 453 632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
FR	0166402	04-Dec-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
FR	0168395	11-Nov-1987	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
FR	0213606	28-Nov-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
FR	0215343	02-Jan-1992	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
FR	0310131	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
FR	0311007	09-Mar-1994	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
FR	0331060	23-Aug-1995	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
FR	0332128	11-May-1994	METHOD FOR STOPPING AN ELECTRIC MOTOR
FR	0352683	21-Dec-1994	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
FR	0355861	09-Feb-1994	INDUSTRIALIZED TOKEN PASSING NETWORK
FR	0381094	09-Mar-1994	MOTOR CONTROLLER WITH OPTICAL SCR'S
FR	0394955	12-Jan-1994	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
FR	0408045	18-Jan-1995	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
FR	0461627	20-Sep-1995	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
FR	0471354	29-Dec-1997	INTELLIGENT NETWORK INTERFACE CIRCUIT
FR	0473086	07-Feb-1996	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
FR	0512372	29-Dec-1997	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
FR	0518244	02-Aug-1995	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
FR	0542205	12-Aug-1998	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
FR	2632428	08-Nov-1995	IMAGE PROCESSOR
FR	2636152	05-May-1995	PIPELINE IMAGE PROCESSOR
FR	2680890	03-Aug-1996	CONFIGURABLE CACHE MEMORY
FR	79/09216		TIME DELAY SWITCH MECHANISM
FR	89/08912	26-Nov-1993	VIDEO IMAGE STORAGE SYSTEM
FR	9100166	03-May-1993	CONFIGURABLE COMMUNICATION INTERFACE MODULE FOR A PROGRAMMABLE CONTROLLER
GB	0 453 632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
GB	0166402	04-Dec-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
GB	0168395	11-Nov-1987	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
GB	0202603	28-Apr-1993	CROSS COUPLED CURRENT REGULATOR
GB	0213606	28-Nov-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
GB	0215343	02-Jan-1992	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
GB	0256463	12-Oct-1994	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
GB	0310131	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
GB	0331060	23-Aug-1995	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
GB	0332128	11-May-1994	METHOD FOR STOPPING AN ELECTRIC MOTOR
GB	0352683	21-Dec-1994	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
GB	0355861	09-Feb-1994	INDUSTRIALIZED TOKEN PASSING NETWORK
GB	0381094	09-Mar-1994	MOTOR CONTROLLER WITH OPTICAL SCR'S
GB	0394955	12-Jan-1994	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
GB	0408045	18-Jan-1995	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
GB	0461627	20-Sep-1995	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
GB	0471354	29-Dec-1997	INTELLIGENT NETWORK INTERFACE CIRCUIT
GB	0473086	07-Feb-1996	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
GB	0512372	29-Dec-1997	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
GB	0518244	02-Aug-1995	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
GB	0542205	12-Aug-1998	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
GB	1352292	05-Aug-1974	CIRCULAR INTERPOLATION BY FINITE DIFFERENCES
GB	1372291	30-Oct-1974	NUMERICAL CONTOURING MACHINE
GB	1430467	04-Feb-1976	PROGRAMMABLE MAGNETICS FOR A NUMERICAL CONTROL SYSTEM
GB	1531159	01-Nov-1978	PROGRAMMABLE CONTROLLER WITH REMOTE I/O INTERFACE RACKS
GB	1531160	01-Nov-1978	PROGRAMMABLE CONTROLLER WITH REMOTE I/O INTERFACE RACKS
GB	1531179	01-Nov-1978	INDUSTRIAL CONTROL PROCESSOR SYSTEM
GB	1532142	15-Nov-1978	CONTACT HISTOGRAM FOR DIGITAL CONTROL SYSTEM
GB	1547509	20-Jun-1979	ASYNCHRONOUS COUPLING OF DATA
GB	1596115	14-Apr-1978	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
GB	2008279	12-Aug-1982	PROGRAMMABLE CONTROLLER WITH RPROGRAMMABLE LIMIT SWITCH
GB	2008362	24-Mar-1982	MULTI-TERMINAL COMPUTER SYSTEM WITH DUAL COMMUNICATION CHANNELS
GB	2010592	23-Jun-1982	CIRCUIT BOARD ASSEMBLY WITH DISCONNECT ARM
GB	2019094	04-Aug-1982	TIME DELAY SWITCH MECHANISM
GB	2038035	19-Jan-1983	MULTIPROCESSOR NUMERICAL CONTROL SYSTEM
GB	2043362	23-Feb-1983	SEALED ENCLOSURES FOR ELECTRICAL DEVICES AND SEALS FOR SUCH ENCLOSURES
GB	2064920		INDUSTRIAL COMMUNICATIONS NETWORK WITH MASTERSHIP DETERMINED BY NEED

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
GB	2082843	19-Sep-1984	EDGE TERMINATION FOR AN ELECTRICAL CIRCUIT DEVICE
GB	2177826	02-Aug-1989	PROGRAMMABLE CONTROLLER WITH FUNCTION CHART
GB	2214716	12-Aug-1992	OPERATING HANDLE FOR AN ENCLOSED ELECTRIC SWITCH
GB	2223884	18-Apr-1990	PROGRAMMABLE CONTROLLER MODULE
GB	2251707	11-May-1994	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
GB	2260829	11-Jan-1995	SEQUENCE CONTROLLER WITH COMBINATORIAL BOOLEAN LOGIC
IN	176405	18-Nov-1996	MOTOR CONTROLLER WITH OPTICAL SCR'S
IN	178022	10-Oct-1997	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
IN	178475	03-Nov-1997	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
IN	180088	18-Dec-1998	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
IN	180913	03-Jun-1999	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
IN	183891	17-Nov-2000	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
IT	0 453632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
IT	0166402	04-Dec-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
IT	0213606	28-Nov-1990	INDUSTRIALIZED TOKEN PASSING NETWORK
IT	0310131	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
IT	0331060	23-Aug-1996	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
IT	0332128	11-May-1994	METHOD FOR STOPPING AN ELECTRIC MOTOR
IT	0355861	09-Feb-1994	INDUSTRIALIZED TOKEN PASSING NETWORK
IT	0381094	09-Mar-1994	MOTOR CONTROLLER WITH OPTICAL SCR'S
IT	461626	18-Oct-1995	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
JP	1119707	28-Oct-1982	CONTROLLER PROGRAM EDITOR
JP	1211610	12-Jun-1984	REGENERATIVE MOTOR CONTROL HAVING IMPROVED FIELD
JP	1624476	18-Nov-1991	I/O SCANNER FOR AN INDUSTRIAL CONTROL
JP	1913588	09-Mar-1995	ENCLOSURE FOR ELECTRICAL SENSOR
JP	1919705	17-Apr-1995	INDUSTRIALIZED TOKEN PASSING NETWORK
JP	1927392	25-Apr-1995	METHOD AND APPARATUS FOR CORRECTING RESOLVER ERRORS
JP	1945950	23-Jun-1995	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
JP	2006263	11-Jan-1996	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
JP	2071094	10-Jul-1996	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
JP	2512160	16-Apr-1996	VIDEO IMAGE STORAGE SYSTEM
JP	2543966	16-Oct-1996	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
JP	2551732	06-Nov-1996	OPERATOR INTERFACE FOR A PHOTOELECTRIC CONTROL UNIT
JP	2597617	09-Jan-1997	BRUSHLESS ROTARY POSITION TRANSDUCER
JP	2634317	25-Apr-1997	IMAGE PROCESSOR WITH ILLUMINATION VARIATION COMPENSATION
JP	2653659	23-May-1997	DATABASE ACCESS MACHINE FOR FACTORY AUTOMATION NETWORK
JP	2659166	06-Jun-1997	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
JP	2925119	07-May-1999	VIDEO IMAGE PROCESSING SYSTEM
JP	2939288	11-Jun-1999	INDUSTRIAL CONTROLLER WITH DECOMPILABLE USER PROGRAM
JP	2940841	18-Jun-1999	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
JP	2944055	25-Jun-1999	INTELLIGENT NETWORK INTERFACE CIRCUIT
JP	2984369	24-Sep-1999	METHODS FOR SET UP AND PROGRAMMING OF MACHINE AND PROCESS CONTROLLERS
JP	3107230	08-Sep-2000	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
JP	3138484	08-Dec-2000	MASTER SLAVE INDUSTRIAL TOKEN PASSING NETWORK
KR	182784	14-Dec-1998	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
KR	226883	29-Jul-1999	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
KR	232437	06-Sep-1999	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
KR	238770	15-Oct-1999	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
KR	243339	16-Nov-1999	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
LI	0542205	12-Aug-1998	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
MX	155136	29-Jan-1988	MOMENTARY MAINTAINED LEVER OPERATED PUSHBUTTON
MX	164401	11-Aug-1992	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
MX	164426	12-Aug-1992	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
MX	164613	08-Sep-1992	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
MX	167382	19-Mar-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
MX	170845	20-Sep-1993	MOTOR CONTROLLER WITH OPTICAL SCR'S
MX	171596	08-Nov-1993	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
MX	173436	03-Mar-1994	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
MX	173436		PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
MX	173441	03-Mar-1994	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR

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Country	Patent Number	Issue Date	Title
MX	174119	21-Apr-1994	OVERLOAD CURRENT PROTECTION APPARATUS
MX	175055	30-Jun-1994	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
MX	175055	30-Jun-1994	OPTICAL SENSOR PROJECTING AN IMAGE OF THE SENSOR FOR ALIGNMENT PURPOSES
MX	177055	27-Feb-1995	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
MX	180594	10-Jan-1995	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
MX	182337	08-Aug-1996	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
NZ	226161	14-May-1990	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
SE	0 453 632	26-Jul-1995	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
SE	0310131	27-Oct-1993	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
US	3810104	07-May-1974	PROGRAMMABLE MAGNETICS FOR A NUMERICAL CONTROL SYSTEM
US	4020287	26-Apr-1977	TELEPHONIC TROUBLESHOOTING CIRCUIT FOR ELECTRIC MOTOR DRIVES
US	4027220	31-May-1977	REGENERATIVE MOTOR CONTROL HAVING IMPROVED FIELD
US	4069464	17-Jan-1978	BIMETAL OVERLOAD RELAY
US	4069465	17-Jan-1978	CYLINDRICAL VARISTOR AND METHOD OF MAKING THE SAME
US	4079313	14-Mar-1978	DIGITAL WATTS TRANSDUCER
US	4087770	02-May-1978	INDUSTRIAL RELAY
US	4100469	11-Jul-1978	HYBRID MOTOR STARTER
US	4133598	09-Jan-1979	TERMINAL BLOCK
US	4134096	09-Jan-1979	TRIMMABLE RESISTOR
US	4139726	13-Feb-1979	PACKAGED MICROCIRCUIT AND METHOD FOR ASSEMBLY THEREOF
US	4155064	15-May-1979	ELECTRICAL RESISTOR ELEMENT
US	4156216	22-May-1979	MERCURY SWITCH RELAY
US	4157523	05-Jun-1979	BIMETAL OVERLOAD RELAY
US	4158757	19-Jun-1979	ENCLOSURE SEAL
US	4158757	19-Jun-1979	SEALED ENCLOSURES FOR ELECTRICAL DEVICES AND SEALS FOR SUCH ENCLOSURES
US	4159836	19-Jun-1979	SOLID STATE TIMER FOR SEALED CONTACT RELAY
US	4164067	14-Aug-1979	METHOD OF MANUFACTURING ELECTRICAL RESISTOR ELEMENT
US	4165534	21-Aug-1979	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
US	4165534	21-Aug-1979	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
US	4169390	02-Oct-1979	ADJUSTING MECHANISM FOR A SNAP-ACTING BELLEVILLE WASHER

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 ELECTRICAL RESISTOR ELEMENT
 BOOLEAN PROCESSOR
 BOOLEAN PROCESSOR
 NAP-ACTING BELLEVILLE WASHER

Country	Patent Number	Issue Date	Title
US	4179676	18-Dec-1979	TIME DELAY RELAY MOVEMENT
US	4181829	01-Jan-1980	TIME DELAY SWITCH MECHANISM
US	4181829	01-Jan-1980	TIME DELAY SWITCH ACTUATING MECHANISM
US	4184140	15-Jan-1980	TWO-PIECE TRIMMING POTENTIOMETER
US	4187529	05-Feb-1980	TERMINAL CONSTRUCTION FOR ELECTRICAL CIRCUIT DEVICE
US	4189085	19-Feb-1980	METHOD OF ASSEMBLING A MICROCIRCUIT WITH FACE-MOUNTED LEADS
US	4195324	25-Mar-1980	HEATING CIRCUIT FOR AN ELECTRIC MOTOR
US	4205296	27-May-1980	REHOSTAT TRIMMER
US	4210948	01-Jul-1980	METHOD AND APPARATUS FOR MONITORING LINE VOLTAGE IN A POLYPHASE SOURCE
US	4213113	15-Jul-1980	ELECTRICAL RESISTOR ELEMENT AND METHOD OF MANUFACTURING THE SAME
US	4223294	16-Sep-1980	VERNIER CONTROL
US	4228495	14-Oct-1980	MULTIPROCESSOR NUMERICAL CONTROL SYSTEM
US	4250477	10-Feb-1981	MECHANICAL LATCH APPARATUS
US	4250482	10-Feb-1981	PACKAGED ELECTRONIC COMPONENT AND METHOD OF PREPARING THE SAME
US	4251700	17-Feb-1981	DISCONNECT SWITCH
US	4256021	17-Mar-1981	PNEUMATIC TIMER WITH ECCENTRICALLY DISPOSED VALVE NEEDLE
US	4263647	21-Apr-1981	FAULT MONITOR FOR NUMERICAL CONTROL SYSTEM
US	4288744	08-Sep-1981	SUMMING WATT-HOUR TRANSDUCER
US	4293924	06-Oct-1981	PROGRAMMABLE CONTROLLER WITH HIGH DENSITY INTELLIGENT I/O INTERFACE
US	4303147	01-Dec-1981	ADJUSTMENT FOR PNEUMATIC TIMER
US	4319338	09-Mar-1982	INDUSTRIAL COMMUNICATIONS NETWORK WITH MASTERSHIP DETERMINED BY NEED
US	4322648	30-Mar-1982	PERMANENT MAGNET MOTOR ARMATURE
US	4324424	13-Apr-1982	SLIP-TYPE CONDUIT HUB FOR ENCLOSURES
US	4327391	27-Apr-1982	MOTOR PROTECTION CIRCUIT
US	4331852	25-May-1982	INDUSTRIAL MEMBRANE SWITCH WITH BREATHER
US	4342077	27-Jul-1982	NUMERICAL CONTROL SERVO DRIVE CIRCUIT
US	4342077	27-Jul-1982	NUMERICAL CONTROL SERVO DRIVE CIRCUIT
US	4350857	21-Sep-1982	ILLUMINATED INDUSTRIAL MEMBRANE SWITCH
US	4355269	19-Oct-1982	MOTOR HEATING CONTROL WITH INTERLOCKED DUAL ISOLATING SWITCHES

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	4357591	02-Nov-1982	VARIABLE RESISTOR
US	4359672	16-Nov-1982	MOTOR STARTER WITH OPTICALLY COUPLED PUSHBUTTON STATION
US	4368098	11-Nov-1983	EPITAXIAL COMPOSITE AND METHOD OF MAKING
US	4376239	08-Mar-1983	INDUSTRIAL MEMBRANE SWITCH
US	4395606	26-Jul-1983	DISCONNECT SWITCH WITH LINE-SIDE CONTACT MODULE
US	4400762	23-Aug-1983	EDGE TERMINATION FOR AN ELECTRICAL CIRCUIT DEVICE
US	4404445	13-Sep-1983	PUSHBUTTON SWITCH OPERATOR ASSEMBLY
US	4404651	13-Sep-1983	PROGRAMMABLE CONTROLLER FOR USING CODED I/O DATA TECHNIQUE
US	4405826	20-Sep-1983	ENCLOSURE SEALING WELL CONSTRUCTION
US	4413319	01-Nov-1983	PROGRAMMABLE CONTROLLER FOR EXECUTING BLOCK TRANSFER WITH REMOTE I/O INTERFACE RACKS
US	4415607	15-Nov-1983	METHOD OF MANUFACTURING PRINTED CIRCUIT NETWORK DEVICES
US	4418374	29-Nov-1983	LATCH RELAY DRIVE CIRCUIT
US	4420831	13-Dec-1983	METHOD AND DEVICE FOR FREQUENCY TRANSLATION
US	4423322	27-Dec-1983	SELF DIAGNOSTIC SWITCH CIRCUIT
US	4435706	06-Mar-1984	SWITCH NETWORK
US	4442504	10-Apr-1984	MODULAR PROGRAMMABLE CONTROLLER
US	4443865	17-Apr-1984	PROCESSOR MODULE FOR A PROGRAMMABLE CONTROLLER
US	4445013	24-Apr-1984	MOMENTARY MAINTAINED LEVER OPERATED PUSHBUTTON
US	4446525	01-May-1984	NUMERIC CONTROL WITH PARAMACRO CAPABILITY
US	4449076	15-May-1984	LIGHT ISOLATED PILOT LIGHT
US	4455621	19-Jun-1984	MODULAR PROGRAMMABLE CONTROLLER
US	4456315	26-Jun-1984	TERMINAL WITH INTERCHANGEABLE APPLICATION MODULE
US	4456800	26-Jun-1984	PLANAR CONTACT ARRAY SWITCH HAVING IMPROVED GROUND PATH FOR DISSIPATING ELECTROSTATIC DISCHARGES
US	4461987	24-Jul-1984	CURRENT SENSING CIRCUIT FOR MOTOR CONTROLS
US	4464605	07-Aug-1984	THREE TERMINAL SOLID STATE PILOT LIGHT
US	4470042	04-Sep-1984	SYSTEM FOR DISPLAYING GRAPHIC AND ALPHANUMERIC DATA
US	4470092	04-Sep-1984	PROGRAMMABLE MOTOR PROTECTOR
US	4477882	16-Oct-1984	COMMUNICATIONS NETWORK FOR PROGRAMMABLE CONTROLLERS
US	4488258	11-Dec-1984	PROGRAMMABLE CONTROLLER WITH CONTROL PROGRAM
US	4490657	25-Dec-1984	AUTOMATIC TORQUE TAPER CIRCUIT

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	4490780	25-Dec-1984	DIGITAL POWER CONVERTER
US	4491819	01-Jan-1985	MAGNETICALLY BIASED INDUCTOR
US	4496791	29-Jan-1985	SPRING-BIASED CONNECTOR FOR ELECTRICALLY BONDING A DEVICE
US	4504927	12-Mar-1985	PROGRAMMABLE CONTROLLER WITH EXPANDABLE I/O INTERFACE CIRCUITRY
US	4507571	26-Mar-1985	OPTICALLY COUPLED INPUT CIRCUIT FOR DIGITAL CONTROL
US	4510565	09-Apr-1985	PROGRAMMABLE CONTROLLER WITH INTELLIGENT POSITIONING I/O MODULES
US	4513181	23-Apr-1985	COMBINATION MECHANICAL AND ELECTRICAL INTERLOCK
US	4521871	04-Jun-1985	PROGRAMMABLE CONTROLLER WITH BACK-UP CAPABILITY
US	4527250	02-Jul-1985	VIDEO COMPUTER TERMINAL WITH DETACHABLE INTELLIGENT KEYBOARD MODULE
US	4527270	02-Jul-1985	COMMUNICATIONS NETWORK WITH STATIONS THAT DETECT AND AUTOMATICALLY BYPASS FAULTS
US	4535386	13-Aug-1985	NATURAL CONVECTION COOLING SYSTEM FOR ELECTRONIC COMPONENTS
US	4546424	08-Oct-1985	COMPENSATED RAMP GENERATING CIRCUIT FOR CONTROLLING SCR
US	4549122	22-Oct-1985	METHOD AND CIRCUIT FOR DC MOTOR FIELD REGULATION WITH SPEED FEEDBACK
US	4553080	12-Nov-1985	POSITION TRANSDUCER
US	4553187	12-Nov-1985	OVERCURRENT DETECTION DEVICE
US	4553224	12-Nov-1985	MULTIPLEXED DATA HANDLER FOR PROGRAMMABLE CONTROLLER
US	4568866	04-Feb-1986	PROGRAMMABLE CONTROLLER FOR STEPPING MOTOR CONTROL
US	4583151	15-Apr-1986	ILLUMINATED DISPLAY
US	4630233	16-Dec-1986	I/O SCANNER FOR AN INDUSTRIAL CONTROL
US	4632497	30-Dec-1986	TERMINAL ASSEMBLY FOR ELECTRICAL APPARATUS
US	4637676	20-Jan-1987	TERMINAL BLOCK MARKING SURFACE
US	4638452	20-Jan-1987	PROGRAMMABLE CONTROLLER WITH DYNAMICALLY ALTERED PROGRAMMABLE REAL TIME INTERRUPT INTERVAL
US	4652805	24-Mar-1987	TACTILE FEEDBACK DEVICE FOR ROTARY MANUAL INPUT
US	4667323	19-May-1987	INDUSTRIALIZED TOKEN PASSING NETWORK
US	4680695	14-Jul-1987	CROSS COUPLED CURRENT REGULATOR
US	4685303	11-Aug-1987	DISC DRIVE ISOLATION SYSTEM
US	4686616	11-Aug-1987	POWER SUPPLY OPERABLE ON VARYING INPUTS

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	4691296	01-Sep-1987	METHODS AND APPARATUS FOR EXCHANGING MULTIPLE DATA BYTES WITH AN I/O MODULE IN A SINGLE SCAN
US	4699293	13-Oct-1987	ENCLOSURE SEAL
US	4699455	13-Oct-1987	FIBER OPTIC CONNECTOR
US	4706012	10-Nov-1987	FREQUENCY COMPENSATED REGULATOR
US	4716495	29-Dec-1987	PRINTED CIRCUIT BOARD CHASSIS WITH POWER INTERLOCK
US	4716497	29-Dec-1987	PRINTED CIRCUIT BOARD MODULE
US	4742443	03-May-1988	PROGRAMMABLE CONTROLLER WITH FUNCTION CHART
US	4747100	24-May-1988	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
US	4750150	07-Jun-1988	I/O SCANNER FOR AN INDUSTRIAL CONTROL
US	4755751	05-Jul-1988	BRUSHLESS ROTARY POSITION TRANSDUCER
US	4758701	19-Jul-1988	INDICATOR LIGHT ASSEMBLY
US	4762007	09-Aug-1988	TORQUE MEASURING APPARATUS
US	4762007	09-Aug-1988	TORQUE MEASURING APPARATUS
US	4769557	06-Sep-1988	MODULAR ELECTRIC LOAD CONTROLLER
US	4771403	13-Sep-1988	I/O MODULE WITH MULTI-FUNCTION INTEGRATED CIRCUITS AND AN ISOLATION INTERFACE FOR MULTIPLEXING DATA BETWEEN A MAIN PROCESSOR AND I/O DEVICES
US	4774407	27-Sep-1988	FIBER OPTIC SWITCHING SYSTEM WITH LINK MONITORING
US	4780869	25-Oct-1988	LOCAL AREA NETWORK REDUNDANCY SYSTEM
US	4785255	15-Nov-1988	DIGITAL FSK SIGNAL DEMODULATOR
US	4785288	15-Nov-1988	MODULAR SMOKE DETECTOR
US	4804895	14-Feb-1989	CHARGE BALANCING CURRENT SAMPLER FOR A DIGITAL MOTOR CONTROL
US	4809217	28-Feb-1989	REMOTE I/O PORT FOR TRANSFER OF I/O DATA IN A PROGRAMMABLE CONTROLLER
US	4825710	02-May-1989	ENCLOSURE FOR ELECTRICAL SENSOR
US	4829297	09-May-1989	COMMUNICATION NETWORK POLLING TECHNIQUE
US	4829596	09-May-1989	PROGRAMMABLE CONTROLLER WITH FIBER OPTIC INPUT/OUTPUT MODULE
US	4831476	16-May-1989	DISC DRIVE ISOLATION SYSTEM
US	4831510	16-May-1989	ENCODER AND RESOLVER SIGNAL PROCESSING CIRCUIT
US	4831582	16-May-1989	DATABASE ACCESS MACHINE FOR FACTORY AUTOMATION NETWORK
US	4833386	23-May-1989	APPARATUS AND METHOD FOR BRAKING AN ELECTRIC MOTOR
US	4839852	13-Jun-1989	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	4845418	04-Jul-1989	FLUX PROFILE CONTROL FOR STARTUP OF AN INDUCTION MOTOR
US	4851621	25-Jul-1989	OPERATING HANDLE FOR AN ENCLOSED ELECTRIC SWITCH
US	4855830	08-Aug-1989	MACHINE VISION SYSTEM WITH ILLUMINATION VARIATION COMPENSATION
US	4855906	08-Aug-1989	SYSTEM FOR HANDLING UNSOLICITED MESSAGES FROM LOWER-TIER CONTROLLERS
US	4858101	15-Aug-1989	PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
US	4862052	29-Aug-1989	METHOD FOR STOPPING AN ELECTRIC MOTOR
US	4875528	24-Oct-1989	TORQUE CONTROL ACTUATOR
US	4876664	24-Oct-1989	PROGRAMMABLE CONTROLLER WITH A DUAL INTERMODULE MESSAGE SYSTEM
US	4882702	21-Nov-1989	PROGRAMMABLE CONTROLLER WITH I/O EXPANSION MODULE LOCATED IN ONE OF I/O MODULE POSITIONS FOR COMMUNICATION WITH OUTSIDE I/O MODULES
US	4888726	19-Dec-1989	DISTRIBUTED PROCESSING IN A CLUSTER OF INDUSTRIAL CONTROLS LINKED BY A COMMUNICATIONS NETWORK
US	4896288	23-Jan-1990	PROGRAMMABLE CONTROLLER INPUT MODULE
US	4897834	30-Jan-1990	BIT ORIENTED COMMUNICATIONS NETWORK
US	4898538	06-Feb-1990	SELF ALIGNING CONNECTOR
US	4899586	13-Feb-1990	ENCLOSURE FOR ELECTRICAL SENSOR
US	4904919	27-Feb-1990	DUAL MODE CONTROL OF A PWM MOTOR DRIVE FOR CURRENT LIMITING
US	4916370	10-Apr-1990	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
US	4916640	10-Apr-1990	VIDEO IMAGE PROCESSING SYSTEM
US	4918589	17-Apr-1990	METHOD AND APPARATUS FOR LINKING PROCESSORS IN A HIERARCHICAL CONTROL SYSTEM
US	4920453	24-Apr-1990	PROGRAMMABLE CONTROLLER MODULE
US	4924307	08-May-1990	IMAGE PROCESSOR
US	4933674	12-Jun-1990	METHOD AND APPARATUS FOR CORRECTING RESOLVER ERRORS
US	4937777	26-Jun-1990	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS
US	4942552	17-Jul-1990	METHOD AND APPARATUS FOR SAVING AND PERFORMING INDUSTRIAL
US	4945448	31-Jul-1990	MEMORY CARTRIDGE FOR A CIRCUIT BOARD MODULE
US	4947099	07-Aug-1990	MOTOR CONTROLLER WITH OPTICAL SCR'S
US	4949299	14-Aug-1990	INDUSTRIAL CONTROL COMMUNICATION NETWORK AND METHOD
US	4958117	18-Sep-1990	FREQUENCY CONTROL BASED ON SENSING VOLTAGE FED TO AN INDUCTION MOTOR

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	4972186	20-Nov-1990	RESOLVER EXCITATION CIRCUIT
US	4972365	20-Nov-1990	EXECUTING DOWNLOADED USER PROGRAMS IN A PROGRAMMABLE CONTROLLER
US	4972367	20-Nov-1990	SYSTEM FOR GENERATING UNSOLICITED MESSAGES ON HIGH TIER COMMUNICATION LINK IN RESPONSE TO CHANGED STATES AT STATION-LEVEL COMPUTERS
US	4978897	18-Dec-1990	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
US	4984085	08-Jan-1991	IMAGE PROCESSOR WITH DARK CURRENT COMPENSATION
US	4991050	05-Feb-1991	METHOD AND DEVICE FOR PROTECTING STARTERS FROM FAULT CURRENTS
US	4996469	26-Feb-1991	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
US	4996470	26-Feb-1991	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
US	5003241	26-Mar-1991	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE
US	5005152	02-Apr-1991	INDUSTRIAL CONTROLLER WITH DECOMPILABLE USER PROGRAM
US	5008608	16-Apr-1991	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
US	5012468	30-Apr-1991	MASTER SLAVE INDUSTRIAL TOKEN PASSING NETWORK
US	5027317	25-Jun-1991	METHOD AND CIRCUIT FOR LIMITING ACCESS TO A RAM PROGRAM MEMORY
US	5032771	16-Jul-1991	SLIP CONTROL BASED ON SENSING VOLTAGE FED TO AN INDUCTION MOTOR
US	5038317	06-Aug-1991	PROGRAMMABLE CONTROLLER MODULE RACK WITH A RELATIVE RACK SLOT ADDRESSING MECHANISM
US	5040995	20-Aug-1991	ADAPTER CARD FOR MULTITERMINAL PANEL CONTROLS
US	5042002	20-Aug-1991	PROGRAMMABLE CONTROLLER WITH A DIRECTED SEQUENCER
US	5046190	03-Sep-1991	PIPELINE IMAGE PROCESSOR
US	5062785	05-Nov-1991	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
US	5063335	05-Nov-1991	TWO-INPUT CONTROL WITH INDEPENDENT PROPORTIONAL AND INTEGRAL GAINS FOR VELOCITY ERROR AND VELOCITY FEEDFORWARD INCLUDING VELOCITY COMMAND LIMITING
US	5065017	12-Nov-1991	ZERO MARK FOR OPTICAL ENCODER USING STATOR MASK PATTERNS AND ROTOR PATTERNS
US	5065314	12-Nov-1991	METHOD AND CIRCUIT FOR AUTOMATICALLY COMMUNICATING IN TWO
US	5065443	12-Nov-1991	IMAGE PROCESSOR WITH ILLUMINATION VARIATION COMPENSATION
US	5072203	10-Dec-1991	METHOD AND DEVICE FOR PROTECTING STARTERS FROM FAULT CURRENTS
US	5089984	18-Feb-1992	ADAPTIVE ALARM CONTROLLER CHANGES MULTIPLE INPUTS TO INDUSTRIAL CONTROLLER IN ORDER FOR STATE WORD TO CONFORM WITH STORED STATE WORD

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5099449	24-Mar-1992	INDUSTRIAL CONTROLLER WITH VARIABLE I/O UPDATE RATE
US	5101145	31-Mar-1992	VELOCITY PROPORTIONAL INTEGRAL REGULATOR WITH NEGATIVE FEEDFORWARD TO CONTROL RESPONSE OF TORQUE
US	5111070	05-May-1992	DC INPUT CIRCUIT WITH CONTROLLED LEAKAGE CURRENT
US	5113317	12-May-1992	SUPPORT FOR AUXILIARY CIRCUIT CARD
US	5113502	12-May-1992	METHOD AND APPARATUS FOR SAVING AND PERFORMING INDUSTRIAL
US	5121043	09-Jun-1992	PWM CONTROL IN THE PULSE DROPPING REGION
US	5122948	16-Jun-1992	REMOTE TERMINAL INDUSTRIAL CONTROL COMMUNICATION SYSTEM
US	5138296	11-Aug-1992	ELECTRIC SWITCH
US	5140248	18-Aug-1992	OPEN LOOP MOTOR CONTROL WITH BOTH VOLTAGE AND CURRENT REGULATION
US	5142135	25-Aug-1992	OPTICAL SENSOR PROJECTING AN IMAGE OF THE SENSOR FOR ALIGNMENT PURPOSES
US	5144286	01-Sep-1992	PHOTOSENSITIVE SWITCH WITH CIRCUIT FOR INDICATING MALFUNCTION
US	5144314	01-Sep-1992	PROGRAMMABLE OBJECT IDENTIFICATION TRANSPONDER SYSTEM
US	5145418	08-Sep-1992	TERMINAL BLOCK SEGMENT WITH FEET FOR MOUNTING ON TRACKS OF TWO DIFFERENT WIDTHS
US	5151642	29-Sep-1992	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
US	5153489	06-Oct-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
US	5153884	06-Oct-1992	INTELLIGENT NETWORK INTERFACE CIRCUIT
US	5155839	13-Oct-1992	APPARATUS USING IN UNDIFFERENTIATED STROBE OUTPUT TO INTERFACE EITHER OF TWO INCOMPATIBLE MEMORY ACCESS SIGNAL TYPES TO A MEMORY
US	5157701	20-Oct-1992	HIGH SPEED COUNTER CIRCUIT
US	5162986	10-Nov-1992	REMOTE DOWNLOADING AND UPLOADING OF MOTION CONTROL PROGRAM INFORMATION TO AND FROM A MOTION CONTROL I/O MODULE IN A PROGRAMMABLE CONTROLLER
US	5168441	01-Dec-1992	METHODS FOR SET UP AND PROGRAMMING OF MACHINE AND PROCESS CONTROLLERS
US	5168441	01-Dec-1992	METHODS FOR SET UP AND PROGRAMMING OF MACHINE AND PROCESS CONTROLLERS
US	5176946	05-Jan-1993	LAMINATED CONTACTOR CORE WITH BLIND HOLE
US	5182716	26-Jan-1993	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
US	5182794	26-Jan-1993	RECURRENT NEURAL NETWORKS TEACHING SYSTEM
US	5187419	16-Feb-1993	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5193189	09-Mar-1993	PROGRAMMABLE CONTROLLER WITH MULTIPLE PRIORITY LEVEL TASK PROCESSING
US	5212631	18-May-1993	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
US	5223706	29-Jun-1993	FIBER OPTIC COLLIMATOR FOR POSITION ENCODERS
US	5223777	29-Jun-1993	NUMERICAL CONTROL SYSTEM FOR IRREGULAR POCKET MILLING
US	5223778	29-Jun-1993	AUTOMATIC TUNING APPARATUS FOR PID CONTROLLERS
US	5225974	06-Jul-1993	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
US	5230422	27-Jul-1993	OPERATOR/CARTRIDGE ASSEMBLY
US	5243232	07-Sep-1993	START-UP PULSE SUPPRESSION CIRCUIT FOR INDUSTRIAL CONTROLLER OUTPUT
US	5245331	14-Sep-1993	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
US	5245331	14-Sep-1993	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
US	5258918	02-Nov-1993	SELECTABLE CONTROL FUNCTION INJECTION MOLDING
US	5258918	02-Nov-1993	SELECTABLE CONTROL FUNCTION INJECTION MOLDING
US	5263003	16-Nov-1993	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
US	5265004	23-Nov-1993	SEQUENCE CONTROLLER WITH COMBINATORIAL BOOLEAN LOGIC
US	5265004	23-Nov-1993	SEQUENCE CONTROLLER WITH COMBINATORIAL BOOLEAN LOGIC
US	5265005	23-Nov-1993	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
US	5274767	28-Dec-1993	PROGRAMMABLE CONTROLLER WITH MODULE IDENTIFICATION AND DIAGNOSTIC MECHANISM
US	5274781	28-Dec-1993	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
US	5281810	25-Jan-1994	PHOTOELECTRIC CONTROL UNIT ADAPTED FOR DETERMINING ITS OWN OPERATING MARGIN
US	5282268	25-Jan-1994	VIDEO IMAGE STORAGE SYSTEM
US	5283407	01-Feb-1994	ARTICULATED PUSHBUTTON ELECTRICAL SWITCHING APPARATUS
US	5283708	01-Feb-1994	OVERLOAD CURRENT PROTECTION APPARATUS
US	5283869	01-Feb-1994	INTERRUPT STRUCTURE FOR NETWORK INTERFACE CIRCUIT
US	5285376	08-Feb-1994	FUZZY LOGIC LADDER DIAGRAM PROGRAM FOR A MACHINE OR PROCESS CONTROLLER
US	5287548	15-Feb-1994	PROGRAMMABLE CONTROLLER HAVING A STORED PROGRAM WITH BOTH MACHINE LANGUAGE INSTRUCTIONS AND SOURCE CODE
US	5289474	22-Feb-1994	COMMUNICATION NETWORK INTERFACE TESTING SYSTEM
US	5295059	15-Mar-1994	PROGRAMMABLE CONTROLLER WITH LADDER DIAGRAM MACRO INSTRUCTIONS

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5296663	22-Mar-1994	ELECTRIC SWITCH
US	5297257	22-Mar-1994	DISTRIBUTING A REAL-TIME CONTROL PROGRAM TO A PLURALITY OF INPUT/OUTPUT NODES
US	5298847	29-Mar-1994	COUNTER EMF DETECTOR FOR USE IN ELECTRIC MOTOR CONTROLLERS
US	5307463	26-Apr-1994	PROGRAMMABLE CONTROLLER COMMUNICATION MODULE
US	5308965	03-May-1994	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
US	5313386	17-May-1994	PROGRAMMABLE CONTROLLER WITH BACKUP CAPABILITY
US	5317117	31-May-1994	GAS DEFLECTION AND ISOLATION SYSTEM FOR USE WITH A HIGH POWER CIRCUIT BREAKER
US	5319783	07-Jun-1994	PROGRAMMABLE CONTROLLER WITH AN OPERATOR MESSAGING FUNCTION
US	5321603	14-Jun-1994	PROGRAMMING APPARATUS FOR AN INDUSTRIAL CONTROLLER USING TWO-DIMENSIONAL GRAPHIC BEHAVIOR PROFILES
US	5324931	28-Jun-1994	PROCESS FOR RELIABLY DETECTING THE PASSAGE OF A TARGET OBJECT USING A PHOTOELECTRIC CONTROL UNIT EMPLOYING PSEUDO-RANDOM JITTER FACTOR PULSES
US	5329217	12-Jul-1994	COMPENSATED FEEDFORWARD VOLTAGE FOR A PWM AC MOTOR DRIVE
US	5332986	26-Jul-1994	OVERLOAD RELAY MECHANISM
US	5336882	09-Aug-1994	SYSTEM FOR DETERMINING OPERATIONAL STABILITY OF A PHOTOELECTRIC CONTROL UNIT HAVING A MARGIN VARIABLE GAIN MODULE
US	5336884	09-Aug-1994	HIGH RESOLUTION OPTICAL HYBRID ABSOLUTE INCREMENTAL POSITION ENCODER
US	5341281	23-Aug-1994	HARMONIC COMPENSATOR USING LOW LEAKAGE REACTANCE TRANSFORMER
US	5347117	13-Sep-1994	OPERATOR INTERFACE FOR A PHOTOELECTRIC CONTROL UNIT
US	5347277	13-Sep-1994	DUAL PHASE RESOLVER TO DIGITAL CONVERTER
US	5350908	27-Sep-1994	AUTOMATIC GAIN CONTROL CIRCUIT HAVING DISTURBANCE CANCELLATION CAPABILITIES
US	5353490	11-Oct-1994	MODULAR PRODUCT ASSEMBLY PLATFORM
US	5378931	03-Jan-1995	LOW LEAKAGE FUSE BLOWN DETECTION CIRCUIT
US	5378979	03-Jan-1995	THREE PHASE POWER ANALYZER
US	5391970	21-Feb-1995	MOTION CONTROLLER WITH REMOTE LINKING AND TIME DISTURBANCE
US	5392207	21-Feb-1995	PROGRAMMABLE MOTION CONTROLLER WITH GRAPHICAL PROGRAMMING AID
US	5392424	21-Feb-1995	APPARATUS FOR DETECTING PARITY ERRORS AMONG ASYNCHRONOUS DIGITAL SIGNALS
US	5396197	07-Mar-1995	NETWORK NODE TAP

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5397515	14-Mar-1995	INJECTION MOLDING MACHINE TEMPERATURE CONTROL SYSTEM
US	5397973	14-Mar-1995	GAIN CONTROL FOR FUZZY LOGIC CONTROLLER
US	5400331	21-Mar-1995	COMMUNICATION NETWORK INTERFACE WITH SCREENERS FOR INCOMING MESSAGES
US	5401925	28-Mar-1995	ELECTRICAL SWITCH WITH REMOVABLE OPERATOR
US	5406440	11-Apr-1995	SOFT-CLOSURE ELECTRICAL CONTACTOR
US	5410717	25-Apr-1995	PROGRAMMABLE CONTROLLER PROCESSOR WITH A REMOVABLE FUNCTION CARD
US	5411162	02-May-1995	V-BAND COUPLING FOR AN EXPLOSION-PROOF ENCLOSURE
US	5416908	16-May-1995	DATA INTERFACE INITIALIZATION APPARATUS AND METHOD FOR A PROGRAMMABLE CONTROLLER
US	5428526	27-Jun-1995	PROGRAMMABLE CONTROLLER WITH TIME PERIODIC
US	5434755	18-Jul-1995	ILLUMINATION SYSTEM FOR A LIGHT EMITTING PANEL
US	5436794	25-Jul-1995	INDUSTRIAL CONTROLLER CARD RACK WITH HEAT TRANSFER ACROSS CARD EDGES
US	5451776	19-Sep-1995	HIGH RESOLUTION OPTICAL HYBRID DIGITAL-ANALOG LINEAR POSITION ENCODER
US	5452201	19-Sep-1995	INDUSTRIAL CONTROLLER WITH HIGHLY DISTRIBUTED PROCESSING
US	5452420	19-Sep-1995	INTELLIGENT NETWORK INTERFACE CIRCUIT
US	5455762	03-Oct-1995	MOTOR CONTROLLER HAVING MULTIPLE COMMAND SOURCES
US	5455911	03-Oct-1995	COMMUNICATIONS PROTOCOL FOR USE IN TRANSFERRING DATA OVER A SERIAL BUS
US	5463296	31-Oct-1995	MOTION CONTROLLER WITH REMOTE LINKING
US	5463527	31-Oct-1995	ELASTOMERIC SUPPORT FOR DISK DRIVES
US	5464976	07-Nov-1995	BAR CODE READER WITH VARIABLE ANGLE SCANNING
US	5471461	28-Nov-1995	DIGITAL COMMUNICATION NETWORK WITH A MODERATOR STATION ELECTION PROCESS
US	5472347	05-Dec-1995	SYSTEM FOR INTERCONNECTING I/O MODULES FOR DATA COMMUNICATIONS OVER A COMMON BACKPLANE
US	5473150	05-Dec-1995	BAR CODE READER WITH CLOSED-LOOP SCAN BEAM FOCUSING
US	5473241	05-Dec-1995	METHOD AND APPARATUS FOR RMS MEASUREMENTS IN INDUCTION MOTOR WITHOUT SAMPLING
US	5479081	26-Dec-1995	AC MOTOR CONTROLLER WITH VOLTAGE MARGIN ADJUSTMENT
US	5479618	26-Dec-1995	SOFT-CONFIGURATION I/O MODULE FOR A MACHINE OR PROCESS CONTROLLER
US	5483142	09-Jan-1996	PRECHARGE CIRCUIT HAVING MICROPROCESSOR-BASED FIRING ANGLE CONTROL CIRCUITRY

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5484965	16-Jan-1996	CIRCUIT BOARD ADAPTED TO RECEIVE A SINGLE IN-LINE PACKAGE MODULE
US	5484995	16-Jan-1996	PULSE DRIVE CIRCUIT FOR BAR CODE READER RESONANT OSCILLATOR
US	5485590	16-Jan-1996	CONFIGURABLE COMMUNICATION INTERFACE MODULE FOR A PROGRAMMABLE CONTROLLER
US	5488281	30-Jan-1996	METHOD AND APPARATUS FOR PREDICTING WINDING FAILURE USING ZERO CROSSING TIMES
US	5491531	13-Feb-1996	MEDIA ACCESS CONTROLLER FOR A STATION ON A COMMUNICATION NETWORK
US	5493194	20-Feb-1996	CONTROL SIGNAL & POWER BUS CONNECTOR ARRANGEMENT FOR A MULTI-AXIS MOTOR CONTROL
US	5493571	20-Feb-1996	DIGITAL COMMUNICATION NETWORK DATA TRANSMISSION METHOD AND APPARATUS
US	5495158	27-Feb-1996	APPARATUS AND METHOD USED WITH AC MOTORS FOR CONTROLLING MOTOR OPERATION
US	5495588	27-Feb-1996	HIGH SPEED RELAY LOGIC PROCESSOR
US	5497063	05-Mar-1996	FUZZY LOGIC SERVO CONTROLLER
US	5502360	26-Mar-1996	STATOR RESISTANCE DETECTOR FOR USE IN ELECTRIC MOTOR CONTROLLERS
US	5508503	16-Apr-1996	BAR CODE READER INCLUDING A PRE-RASTER OSCILLATOR MIRROR
US	5510612	23-Apr-1996	WIRING BASE FOR PHOTOELECTRIC SCANNING UNIT
US	5510687	23-Apr-1996	ELECTRIC MOTOR CONTROLLER WITH TEMPERATURE PROTECTION
US	5512744	30-Apr-1996	TAPERED BEAM FOLDED CROSS FLEXURE SUSPENSION
US	5519726	21-May-1996	INDUSTRIAL CONTROLLER WITH COORDINATED TIMING
US	5525777	11-Jun-1996	APPARATUS AND METHOD FOR FLEXIBLE POINT-TO-POINT
US	5528073	18-Jun-1996	BUS BAR HAVING REDUCED PARASITIC INDUCTANCES AND EQUAL CURRENT PATH LENGTHS
US	5528134	18-Jun-1996	AC POWER ANALYZER
US	5530643	25-Jun-1996	METHOD OF PROGRAMMING INDUSTRIAL CONTROLLERS WITH HIGHLY DISTRIBUTED PROCESSING (HDC II Compiler, etc.)
US	5532468	02-Jul-1996	BAR CODE READER FOR SCANNING AN AREA AT VARIABLE SWEEP ANGLES
US	5532480	02-Jul-1996	DYNAMIC DAMPER FOR AN OSCILLATING MIRROR IN A CODE
US	5537549	16-Jul-1996	COMMUNICATION NETWORK WITH TIME COORDINATED STATION ACTIVITY
US	5539192	23-Jul-1996	BAR CODE READER MIRROR OSCILLATOR
US	5539975	30-Jul-1996	CONTROL SYSTEM AND EQUIPMENT CONFIGURATION FOR A MODULAR PRODUCT ASSEMBLY PLATFORM
US	5543698	06-Aug-1996	METHOD AND APPARATUS USED WITH AC MOTOR FOR DETECTING UNBALANCE

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5548197	20-Aug-1996	METHOD AND APPARATUS FOR DETERMINING MOTOR SPEED USING ZERO CROSSING TIMES
US	5553095	03-Sep-1996	METHOD AND APPARATUS FOR EXCHANGING DIFFERENT CLASSES OF DATA DURING DIFFERNT TIME INTERVALS
US	5555438	10-Sep-1996	I/O MODULE WITH SERIAL DATA RING TRANSFER
US	5564059	08-Oct-1996	SIMPLIFIED PROTOCOL FOR EXPANDING A FIXED WIDTH BUS IN AN INDUSTRIAL CONTROLLER
US	5565753	15-Oct-1996	METHOD AND APPARATUS FOR CURRENT REBALANCE IN INDUCTION MOTOR
US	5567042	22-Oct-1996	REFLECTOR FOR FLAT PANEL DISPLAY BACKLIGHT UNIT
US	5567994	22-Oct-1996	ACTIVE HARMONIC FILTERING EMPLOYING HARMONIC IDENTIFICATION ALGORITHM AND HYBRID CURRENT CANCELLATION
US	5579198	26-Nov-1996	APPARATUS FOR INTERRUPTING ELECTRICAL POWER BETWEEN TWO CONDUCTORS
US	5581169	03-Dec-1996	APPARATUS USED WITH AN INVERTER/CONVERTER ELIMINATING UNINTENDED VOLTAGE PULSES
US	5581877	10-Dec-1996	METHOD OF FABRICATION OF A CIRCUIT BOARD ADAPTED TO RECEIVE A SINGLE IN-LINE MODULE
US	5583412	10-Dec-1996	APPARATUS & METHOD FOR CONTROLLING DECELERATION OF AN ELECTRIC MOTOR
US	5587861	24-Dec-1996	METHOD FOR INTERRUPTING ELECTRICAL POWER BETWEEN TWO CONDUCTORS
US	5602984	11-Feb-1997	CONFIGURABLE CACHE MEMORY
US	5610453	11-Mar-1997	PULSEWIDTH MODULATION (PWM) FREQUENCY SLIDER
US	5610493	11-Mar-1997	TERMINAL CONFIGURATION FOR A MOTOR CONTROLLER
US	5610806	11-Mar-1997	PULSE WIDTH MODULATION METHOD FOR DRIVING THREE PHASE POWER INVERTER/CONVERTER SWITCHES WITH BALANCED DISCONTINUOUS PHASE COMMANDS
US	5612582	18-Mar-1997	SWITCHING DEVICE
US	5612605	18-Mar-1997	AUTO BOOST FOR VOLTAGE/FREQUENCY MOTOR CONTROLLER
US	5614801	25-Mar-1997	APPARATUS FOR EFFECTIVELY HANDLING A SATURATION CONDITION IN A DIGITAL COMPENSATOR
US	5615087	25-Mar-1997	INSULATED SURFACE MOUNT CIRCUIT BOARD CONSTRUCTION
US	5616888	01-Apr-1997	RIGID-FLEX CIRCUIT BOARD HAVING A WINDOW FOR INSULATED MOUNTING AREA
US	5619114	06-Apr-1997	SIGNAL AVERAGER FOR USE WITH MOTOR CONTROLLER
US	5619409	08-Apr-1997	PROGRAM ANALYSIS CIRCUITRY FOR MULTI-TASKING INDUSTRIAL CONTROLLER
US	5625550	29-Apr-1997	APPARATUS USED WITH AC MOTORS FOR COMPENSATING FOR TURN ON DELAY ERRORS
US	5627447	06-May-1997	METHOD AND APPARATUS FOR DETECTING CURRENT DELAY ANGLE FROM MOTOR TERMINAL VOLTAGE

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5627745	06-May-1997	PARALLEL MONITORING, SEARCHING AND EDITING OF USER PROGRAMS IN A SINGLE-TASK OF A MULTI-TASKING OPERATING SYSTEM
US	5629839	13-May-1997	A MODULE INTERCONNECT ADAPTER FOR REDUCED PARASITIC INDUCTANCE
US	5635724	03-Jun-1997	METHOD AND APPARATUS FOR DETECTING THE LOCATION OF AN OBJECT ON A SURFACE
US	5636113	03-Jun-1997	SATURABLE REACTOR
US	5636124	03-Jun-1997	MULTITASKING INDUSTRIAL CONTROLLER
US	5641944	24-Jun-1997	POWER SUBSTRATE WITH IMPROVED THERMAL CHARACTERISTICS
US	5644475	01-Jul-1997	SOLDER MASK FOR A FINGER CONNECTOR ON A SINGLE IN-LINE PACKAGE MODULE
US	5648892	15-Jul-1997	WIRELESS CIRCUIT BOARD SYSTEM FOR A MOTOR CONTROLLER
US	5656908	12-Aug-1997	FILTER/COMPENSATOR WITH NEGATIVE COEFFICIENT CONTROL OF RESONANT LOADS
US	5657194	12-Aug-1997	METHOD & APPARATUS FOR RESETTING A SOLID STATE RELAY
US	5657216	12-Aug-1997	METHOD AND APPARATUS FOR LINEARIZING PULSE WIDTH MODULATION IN OVERMODULATION REGION
US	5659231	19-Aug-1997	BRAKE FOR DC BRUSHLESS MOTOR
US	5661353	26-Aug-1997	ELECTROSTATIC SHIELD FOR AC MOTOR
US	5661700	26-Aug-1997	SYNCHRONIZABLE LOCAL CLOCK FOR INDUSTRIAL CONTROLLER SYSTEM
US	5668947	16-Sep-1997	HARDWARE ASSISTED SOFTWARE ASIC SELF TEST
US	5669788	23-Sep-1997	SCREWLESS TERMINAL BLOCK LINKING APPARATUS
US	5670749	23-Sep-1997	A MULTILAYER CIRCUIT BOARD HAVING A WINDOW EXPOSING AN ENHANCED CONDUCTIVE LAYER FOR USE AS AN INSULATED MOUNTING AREA
US	5671130	23-Sep-1997	METHOD AND APPARATUS FOR CONTROLLING VOLTAGE REFLECTIONS USING A MOTOR CONTROLLER
US	5671335	23-Sep-1997	PROCESS OPTIMIZATION USING A NEURAL NETWORK
US	5684374	04-Nov-1997	METHOD AND APPARATUS FOR TUNING A MOTION CONTROL SYSTEM HAVING AN EXTERNAL VELOCITY LOOP
US	5684375	04-Nov-1997	METHOD AND APPARATUS FOR TUNING A MOTION CONTROL SYSTEM
US	5687834	18-Nov-1997	SELECTOR SWITCH HAVING AN EASILY REMOVABLE KNOB
US	5689161	18-Nov-1997	MOTION CONTROLLER WITH REMOTE LINKING
US	5689169	18-Nov-1997	TRANSIENT INDUCTANCE IDENTIFIER FOR MOTOR CONTROL
US	5689398	18-Nov-1997	REDUNDANT CONTROL RELAY CIRCUITS
US	5698975	16-Dec-1997	MOUNTING AND COUPLING ARRANGEMENT FOR A PROXIMITY

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5698986	16-Dec-1997	CIGARETTE DENSITY MONITOR
US	5699609	23-Dec-1997	FIXTURE FOR MOTOR CONTROLLER POWER SUBSTRATE AND MOTOR CONTROLLER INCORPORATING SAME
US	5701083	23-Dec-1997	APPARATUS FOR MEASURING CONSISTENCY AND FLOW RATE OF A SLURRY
US	5705971	06-Jan-1998	LOW LEAKAGE REACTANCE TRANSFORMER
US	5706186	06-Jan-1998	HYBRID PULSE WIDTH MODULATION METHOD AND APPARATUS
US	5712477	27-Jan-1998	SYSTEM TO PROVIDE ALIGNMENT & TROUBLESHOOTING AID FOR PHOTOELECTRIC SENSORS THROUGH ALTERNATING NUMERIC DISPLAY
US	5715439	03-Feb-1998	BI-DIRECTIONAL CO-PROCESSOR INTERFACE
US	5717305	10-Feb-1998	METHOD AND APPARATUS FOR STARTING AN ELECTRIC MOTOR
US	5736825	07-Apr-1998	METHOD AND APPARATUS FOR LINEARIZING PULSE WIDTH MODULATION BY MODIFYING COMMAND VOLTAGES
US	5737626	07-Apr-1998	DETERMINISTIC COMMUNICATION NETWORK FOR INDUSTRIAL CONTROL
US	5742042	21-Apr-1998	HALL SENSOR RASTER CONTROL
US	5744766	28-Apr-1998	DEVICE & METHOD FOR ESTABLISHING A CONDUCTIVE PATH IN A SWITCH CIRCUIT
US	5745708	28-Apr-1998	BACKPLANE ARBITRATION FOR INDUSTRIAL AUTOMATION CONTROLLERS
US	5754411	19-May-1998	CIRCUIT BOARD HAVING A WINDOW ADAPTED TO RECEIVE A SINGLE IN-LINE PACKAGE MODULE
US	5768632	16-Jun-1998	INDUSTRIAL CONTROLLER WITH FUNCTIONAL KEYING OF INPUT/OUTPUT MODULES (I/O KEYING)
US	5774353	30-Jun-1998	FIXTURE FOR MOTOR CONTROLLER POWER SUBSTRATE AND MOTOR CONTROLLER INCORPORATING SAME
US	5777377	07-Jul-1998	BUS BAR HAVING REDUCED PARASITIC INDUCTANCES AND EQUAL CURRENT PATH LENGTHS
US	5777874	07-Jul-1998	PROGRAMMABLE CONTROLLER BACKUP SYSTEM
US	5781776	14-Jul-1998	INDUSTRIAL CONTROLLER PERMITTING PROGRAM EDITING DURING PROGRAM EXECUTION
US	5793064	11-Aug-1998	BIDIRECTIONAL LATERAL INSULATED GATE BIPOLAR TRANSISTOR HAVING INCREASED VOLTAGE BLOCKING CAPABILITY
US	5796603	18-Aug-1998	METHOD FOR PARTITIONING A CONTROL PROGRAM FOR A HIGHLY DISTRIBUTED CONTROL SYSTEM
US	5796643	18-Aug-1998	DIGITAL FILTER
US	5801645	01-Sep-1998	AUTOMATIC PAIRED LVDT PROBE BALANCING
US	5801651	01-Sep-1998	MANCHESTER DECODER WITH RECEIVED SIGNAL BLANKING
US	5809334	15-Sep-1998	RECEIVE PACKET PRE-PARSING BY A DMA CONTROLLER
US	5811949	22-Sep-1998	TURN-ON DELAY COMPENSATOR FOR MOTOR CONTROL

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5812133	22-Sep-1998	INDUSTRIAL CONTROLLER WITH DISPLAY OF RUNG EXECUTION
US	5812759	22-Sep-1998	FAULT HANDLING WITH LOADED FUNCTIONS
US	5814967	29-Sep-1998	APPARATUS TO REDUCE NO LOAD CURRENT AT LOW FREQUENCIES
US	5816867	06-Oct-1998	CURVED WIRE SPRING CLAMP WITH OPTIMIZED BENDING STRESS DISTRIBUTION
US	5818711	06-Oct-1998	VISUAL DISPLAY OF ON-LINE EDITS IN PROGRAMMING
US	5819097	06-Oct-1998	TABLE DRIVEN COMPILER
US	5828983	27-Oct-1998	METHOD AND APPARATUS FOR PROCESSING A SAMPLED WAVEFORM
US	5831410	03-Nov-1998	APPARATUS USED WITH AC MOTORS FOR ELIMINATING LINE VOLTAGE REFLECTIONS
US	5832195	03-Nov-1998	PEER-TO-PEER FAULT IDENTIFICATION
US	5834723	10-Nov-1998	APPARATUS FOR RETAINING A MOVEABLE CONTACT IN A CIRCUIT INTERRUPTER
US	5835356	10-Nov-1998	BUS STRUCTURE FOR A POWER SUBSTRATE
US	5835364	10-Nov-1998	HARMONIC ELIMINATING PWM CONVERTER
US	5835781	10-Nov-1998	BREAK-AWAY KEY FOR ELECTRONIC CIRCUITRY
US	5842039	24-Nov-1998	DYNAMIC PROTOCOL SWITCHING FOR USE WITH A PROGRAMMABLE CONTROLLER
US	5844186	01-Dec-1998	MOTOR CONTACTOR WITH MECHANICAL LOCKOUT
US	5844794	01-Dec-1998	DISTRIBUTED INDUSTRIAL CONTROLLER WITH SELF-PROGRAMMING DATA EXCHANGE
US	5844795	01-Dec-1998	DIAGNOSTIC AID FOR INDUSTRIAL CONTROLLER USING MULTI-TASKING ARCHITECTURE (as amended)
US	5845149	01-Dec-1998	INDUSTRIAL CONTROLLER WITH ADDRESS MAPPING TABLE FOR INPUT AND OUTPUT (I/O MAPPING)
US	5850132	15-Dec-1998	APPARATUS USED WITH AC MOTORS FOR COMPENSATING FOR TURN ON DELAY ERRORS
US	5852559	22-Dec-1998	POWER CIRCUIT (LIGBT)
US	5856646	05-Jan-1999	ERGONOMIC PALM OPERATED SOFT TOUCH CONTROL WITH MULTI-PLANE SENSING PADS
US	5857093	05-Jan-1999	CROSS COMPILED SIMULATION TIMING BACKANNOTATION (CCSTB)
US	5862411	19-Jan-1999	SYSTEM USING A VARIABLE TIMER TO OPTIMALLY ADJUST ISSUING A START DATA COLLECTION SIGNAL AT NEAR THE BEGINNING OF DATA TRANSMISSION SIGNAL
US	5864453	26-Jan-1999	APPARATUS FOR INTERRUPTING ELECTRICAL POWER BETWEEN TWO CONDUCTORS
US	5868020	09-Feb-1999	BRAKE TIME MONITOR AND BRAKE CONTROL SYSTEM FOR A PRESS HAVING A PROGRAMMABLE CONTROLLER
US	5872561	16-Feb-1999	ACTIVE CAPACITIVE PRECHARGE & BACK DRIVE FOR PASSIVE RESISTIVE TOUCH KEY ARRAYS

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5878430	02-Mar-1999	OBJECT ATTRIBUTE HANDLER
US	5879626	09-Mar-1999	PHOTOELECTRIC SENSOR HAVING DUST REMOVAL APPARATUS
US	5881247	09-Mar-1999	INTERFACE CIRCUIT FOR CONTROLLING MESSAGE DATA FLOW OVER A BACKPLANE BUS
US	5881290	09-Mar-1999	INDUSTRIAL CONTROLLER DECOMPILER ACCOMODATING AN EXPANDABLE INSTRUCTION SET
US	5887029	23-Mar-1999	METHOD OF SCHEDULING SPATIALLY SEPARATED CONTROL EVENTS WITH AN INDUSTRIAL CONTROLLER (I/O SCHEDULING)
US	5896257	20-Apr-1999	TWO SENSOR FOR OVER-CURRENT PROTECTION AND CURRENT SENSING CONFIGURATION MOTOR CONTROL
US	5896263	20-Apr-1999	OUTPUT CIRCUIT HAVING ELECTRONIC OVERLOAD PROTECTION
US	5896289	20-Apr-1999	OUTPUT WEIGHTED PARTITIONING METHOD FOR A CONTROL PROGRAM IN A HIGHLY DISTRIBUTED CONTROL SYSTEM
US	5904592	18-May-1999	DUAL MODE DIN RAIL LATCH WITH TACTILE FEEDBACK
US	5905644	18-May-1999	DC BUS VOLTAGE CONTROLLER
US	5907475	25-May-1999	CIRCUIT BOARD SYSTEM HAVING A MOUNTED BOARD AND A PLURALITY OF MOUNTING BOARDS
US	5907476	25-May-1999	SELF-LOCKING RAIL SECUREMENT DEVICE
US	5912521	15-Jun-1999	PERMANENT MAGNET ROTOR WITH SHORTING TURNS
US	5912813	15-Jun-1999	METHOD AND APPARATUS FOR CONTROLLING REFLECTED VOLTAGE USING A MOTOR CONTROLLER
US	5912814	15-Jun-1999	REDUNDANT, MULTITASKING INDUSTRIAL CONTROLLERS WITH SYNCHRONIZED DATA TABLES
US	5914664	22-Jun-1999	OPTICALLY SENSING AUXILIARY SWITCH
US	5914666	22-Jun-1999	AUTO-CONFIGURABLE SERIES COMMUNICATION SYSTEM
US	5914970	22-Jun-1999	PROVIDING PARITY WITHOUT SPECIALTY PARITY RAMS
US	5917721	29-Jun-1999	APPARATUS FOR REDUCING THE EFFECTS OF TURN ON DELAY ERRORS IN MOTOR CONTROL
US	5923132	13-Jul-1999	METHOD AND APPARATUS FOR SYNCHRONOUS MULTI-AXIS SERVO PATH PLANNING
US	5923144	13-Jul-1999	FREQUENCY GENERATOR FOR A MOTOR CONTROLLER
US	5930112	27-Jul-1999	CIRCUIT BOARD ARCHITECTURE FOR A MOTOR DRIVE
US	5933347	03-Aug-1999	A DATA WRITE DETECTION CIRCUIT FOR MAINTAINING SYNCHRONIZATION IN A REDUNDANCY SYSTEM
US	5933654	03-Aug-1999	DYNAMIC BUFFER FRACTURING BY A DMA CONTROLLER TO FACILITATE RAPID DATA PARSING
US	5933655	03-Aug-1999	CASCADING ACCESS LINKED LIST CALL
US	5940293	17-Aug-1999	BAR CHART EDITOR FOR INDUSTRIAL CONTROLLER PROGRAMMING

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	5943675	24-Aug-1999	CHANGE LOG HISTORIAN SYSTEM FOR MEMORY SHARED BY MULTIPLE WORKSTATIONS
US	5944172	31-Aug-1999	BIASING ASSEMBLY FOR A SWITCHING DEVICE
US	5949673	07-Sep-1999	HYBRID CENTRALIZED AND DISTRIBUTED INDUSTRIAL CONTROLLER
US	5949674	07-Sep-1999	RECONSTRUCTION TOOL FOR EDITING DISTRIBUTED INDUSTRIAL CONTROLLER PROGRAMS
US	5952822	14-Sep-1999	DUAL COIL INDUCTIVE PROXIMITY SENSOR
US	5956244	21-Sep-1999	APPARATUS FOR CONTROLLING CURRENTS IN PARALLEL VOLTAGE SOURCE CONVERTERS
US	5963003	05-Oct-1999	METHOD AND APPARATUS FOR ASYNCHRONOUS MULTI-AXIS SERVO PATH PLANNING
US	5963448	05-Oct-1999	INDUSTRIAL CONTROLLER HAVING REDUNDANCY AND USING CONNECTED MESSAGING
US	5965995	12-Oct-1999	TRANSIENT INDUCTANCE TUNER FOR MOTOR CONTROL
US	5966300	12-Oct-1999	REDUNDANT AUTOMATION CONTROLLER WITH DEDUCTIVE
US	5966301	12-Oct-1999	METHOD FOR CONDITIONALLY AUTOQUALIFYING A SECONDARY REDUNDANT CONTROL CHASSIS was entitled: A REDUNDANT INDUSTRIAL CONTROL SYSTEM WITH THE ABILITY TO SUSPEND SYNCHRONIZATION FOR TESTING AND SYSTEM UPGRADES
US	5966304	12-Oct-1999	AN INDUSTRIAL CONTROL SYSTEM WITH REDUNDANCY AND MODULE REMOVAL AND INSERTION UNDER POWER FOR SYSTEM UPGRADES WITHOUT DISRUPTION OF CONTROL
US	5966519	12-Oct-1999	MECHANISM FOR DEVELOPING INTEROPERABLE PRODUCTS
US	5967721	19-Oct-1999	LOOSENING-RESISTANT THREADED FASTENER SYSTEM AND METHOD OF USE
US	5977569	02-Nov-1999	BIDIRECTIONAL LATERAL INSULATED GATE BIPOLAR TRANSISTOR HAVING INCREASED VOLTAGE BLOCKING CAPABILITY
US	5977741	02-Nov-1999	METHOD FOR STABILIZING AC INDUCTION MOTOR HAVING AN OPEN LOOP INVERTER
US	5983298	09-Nov-1999	INDUSTRIAL CONTROLLER PERMITTING REMOVAL AND INSERTION OF CIRCUIT CARDS WHILE UNDER POWER
US	5986896	16-Nov-1999	PROGRAMMABLE CONTROLLER HAVING A SYSTEM FOR REDUCING ENERGY CONSUMPTION OF RELAY OUTPUTS
US	5990654	23-Nov-1999	APPARATUS FOR ELIMINATING MOTOR VOLTAGE REFLECTIONS AND REDUCING EMI CURRENTS
US	5990658	23-Nov-1999	APPARATUS FOR CONTROLLING REFLECTED VOLTAGE ON MOTOR SUPPLY LINES
US	5995910	30-Nov-1999	METHOD AND SYSTEM FOR SYNTHESIZING VIBRATION DATA
US	5997166	07-Dec-1999	REDUNDANT INDUSTRIAL CONTROLLER STORING MODULE AND CHASSIS LEVEL REDUNDANCY STATUS
US	6009454	28-Dec-1999	MULTI-TASKING OPERATING SYSTEM FOR INDUSTRIAL CONTROLLER

<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	6013889	11-Jan-2000	METHOD FOR RETAINING A CONDUCTING ELEMENT IN A CIRCUIT INTERRUPTER
US	6014007	11-Jan-2000	METHOD AND APPARATUS FOR STARTING AN AC DRIVE INTO A ROTATING MOTOR
US	6014497	11-Jan-2000	METHOD AND APPARATUS FOR DETERMINING A CRITICAL DWELL TIME FOR USE IN MOTOR CONTROLS
US	6018225	25-Jan-2000	METHOD AND APPARATUS FOR RECONNECTING A ROTATING MOTOR TO A MOTOR DRIVE
US	6018797	25-Jan-2000	INTEGRATED RELAY LADDER LANGUAGE, REDUCED INSTRUCTION SET COMPUTER
US	6023417	08-Feb-2000	GENERALIZED DISCONTINUOUS PULSE WIDTH MODULATOR
US	6028753	22-Feb-2000	METHOD AND APPARATUS FOR INTERRUPTING A CURRENT CARRYING PATH IN A MULTIPHASE CIRCUIT (fast shunting case)
US	6029343	29-Feb-2000	INSULATED SURFACE MOUNT CIRCUIT BOARD CONSTRUCTION
US	6031723	29-Feb-2000	INSULATED SURFACE MOUNT CIRCUIT BOARD CONSTRUCTION
US	6037857	14-Mar-2000	SERIAL DATA ISOLATOR FOR INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
US	6043703	28-Mar-2000	ACTIVE DC INPUT CIRCUIT
US	6044410	28-Mar-2000	SYSTEM FOR DATA TRANSFER WHERE MULTI-WORD DATA TRANSMISSION FROM INDUSTRIAL CONTROLLER TO I/O MODULE IS PERFORMED USING I/O IMAGE TABLE-BASED HANDSHAKING PROTOCOL (AS AMENDED)
US	6047275	04-Apr-2000	FUZZY LOGIC WINDER ANALYZER
US	6055632	25-Apr-2000	METHOD AND APPARATUS FOR TRANSFERRING FIRMWARE TO A NONVOLATILE MEMORY OF A PROGRAMMABLE CONTROLLER SYSTEM
US	6064173	16-May-2000	APPLICATION-SPECIFIC ELECTRONIC MOTOR STARTER
US	6064814	16-May-2000	AUTOMATICALLY UPDATED CROSS REFERENCE SYSTEM HAVING INCREASED FLEXIBILITY
US	6073053	06-Jun-2000	INDUSTRIAL CONTROLLER INPUT/OUTPUT CARD PROVIDING REFLEX RESPONSE
US	6076020	13-Jun-2000	AXIS EDITOR FOR INDUSTRIAL CONTROLLER PROGRAMMING
US	6080940	27-Jun-2000	PUSH-BUTTON SWITCH SPRING
US	6081427	27-Jun-2000	RETAINER FOR PRESS-PACK SEMI-CONDUCTOR DEVICE
US	6088624	11-Jul-2000	INDUSTRIAL CONTROLLER WITH FLEXIBLE DATA STRUCTURES
US	6091998	18-Jul-2000	SELF ORGANIZING INDUSTRIAL CONTROL SYSTEM USING BIDDING PROCESS
US	6094289	25-Jul-2000	METHOD AND APPARATUS FOR OPTICAL CODE READER USING A MEM OPTICAL RESONATOR HAVING AN INTEGRAL PHOTODETECTOR
US	6094955	01-Aug-2000	SELF-ORGANIZING ROLLING MILL
US	6095867	01-Aug-2000	METHOD AND APPARATUS FOR TRANSMITTING POWER AND DATA SIGNALS VIA A NETWORK CONNECTOR SYSTEM INCLUDING INTEGRAL POWER CAPACITORS

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	6101105	08-Aug-2000	APPARATUS AND METHOD TO MAKE ISOLATED DC VOLTAGE MEASUREMENTS
US	6101425	08-Aug-2000	MULTIPLE CONNECTION NETWORKED MAN-MACHINE INTERFACES FOR COMPUTER NUMERICAL CONTROLS
US	6104962	15-Aug-2000	METHOD OF ASSIGNING OBJECTS TO INDUSTRIAL CONTROLLERS WITH HIGHLY DISTRIBUTED PROCESSING
US	6108587	22-Aug-2000	INJECTION MOLDING CONTROLLER WITH MACHINE MODELING
US	6108662	22-Aug-2000	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR INTEGRATED ENTERPRISE-WIDE CONTROL
US	6138174	24-Oct-2000	INDUSTRIAL CONTROL SYSTEM PROVIDING REMOTE EXECUTION OF GRAPHICAL UTILITY PROGRAMS
US	6138271	24-Oct-2000	OPERATING SYSTEM FOR EMBEDDED COMPUTERS
US	6144181	07-Nov-2000	METHOD AND APPARATUS FOR REDUCING RESONANCE IN A DUAL INERTIA SYSTEM
US	6144895	07-Nov-2000	SYSTEM AND METHOD FOR NETWORKING A COMPUTER NUMERICAL CONTROL WITH A WORKSTATION
US	6154679	28-Nov-2000	BUS ISOLATOR FOR INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
US	6154683	28-Nov-2000	LOW VOLTAGE INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
US	6154684	28-Nov-2000	TEMPLATE LANGUAGE EXTENSIONS TO RELAY LADDER LOG
US	6156989	05-Dec-2000	MULTI-PHASE VACUUM CONTACTOR
US	6157864	05-Dec-2000	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR DISPLAYING AN ANIMATED, REALTIME UPDATED CONTROL SEQUENCE CHART
US	6159685	12-Dec-2000	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
US	6161051	12-Dec-2000	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR UTILIZING EXTERNAL MODELS FOR ENTERPRISE-WIDE CONTROL
US	6166929	26-Dec-2000	CSI BASED DRIVE HAVING ACTIVE DAMPING CONTROL
US	6167406	26-Dec-2000	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR BUILDING AN ENTERPRISE-WIDE DATA MODEL
US	6167464	26-Dec-2000	MOBILE HUMAN/MACHINE INTERFACE FOR USE WITH INDUSTRIAL CONTROL
US	6169481	02-Jan-2001	LOW COST MATERIAL SUITABLE FOR REMOTE SENSING (Magneto
US	6169929	02-Jan-2001	AUTOMATIC POLLING FOR USER INTERRUPTS IN A PROGRAMMABLE CONTROLLER USING RELAY LADDER LOGIC
US	6172498	09-Jan-2001	METHOD AND APPARATUS FOR ROTOR ANGLE DETECTION
US	6172875	09-Jan-2001	PROGRAMMABLE LOGIC CONTROLLER MODULE ASSEMBLY AND LOCKING SYSTEM
US	6177875	23-Jan-2001	SIMPLE VOLTAGE WINDOW SENSING CIRCUIT
US	6179644	30-Jan-2001	POWER AND DATA NETWORK SYSTEM MEDIA ARCHITECTURE

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<i>Country</i>	<i>Patent Number</i>	<i>Issue Date</i>	<i>Title</i>
US	6184673	06-Feb-2001	ACTIVE CORE CURRENT SENSOR
US	6188322	13-Feb-2001	METHOD FOR SENSING ELECTRICAL CURRENT
US	6194984	27-Feb-2001	MOVABLE CONTACT ASSEMBLY FOR AN ELECTRICAL CONTACTOR
US	6198058	06-Mar-2001	SWITCH CONTACT MECHANISM
US	6198614	06-Mar-2001	ELECTRICAL CONTACTOR AND METHOD FOR CONTROLLING SAME
US	6198647	06-Mar-2001	TWELVE-PHASE TRANSFORMER CONFIGURATION
US	6200036	13-Mar-2001	TAKE-UP FRAME SYSTEM AND METHOD WITH FORCE FEEDBACK
US	6200407	13-Mar-2001	A METHOD OF MAKING A MULTILAYER CIRCUIT BOARD HAVING A WINDOW EXPOSING AN ENHANCED CONDUCTIVE LAYER FOR USE AS AN INSULATED MOUNTING AREA
US	6204751	20-Mar-2001	CURRENT INRUSH LIMITING CIRCUIT WITH FAST RESET
US	6208495	27-Mar-2001	METHOD AND APPARATUS FOR INTERRUPTING A CURRENT CARRYING PATH IN A MULTIPHASE CIRCUIT (fast shunting case)
US	6208537	27-Mar-2001	SERIES RESONANT SINEWAVE OUTPUT FILTER AND DESIGN METHODOLOGY
US	6215204	10-Apr-2001	EMERGENCY STOP SYSTEM EMPLOYING MODULAR RELAYS
US	6218813	17-Apr-2001	CROSS CURRENT COMPENSATION SYSTEM AND METHOD
US	6225812	01-May-2001	METHOD AND APPARATUS FOR MEASURING THE DENSITY OF A SUBSTANCE HAVING FREE WATER COMPENSATION
US	6225825	01-May-2001	INDUSTRIAL CONTROL SYSTEMS HAVING INPUT/OUTPUT CIRCUITS WITH PROGRAMMABLE INPUT/OUTPUT CHARACTERISTICS
US	6229278	08-May-2001	VOLTAGE AND CURRENT LIMIT METHOD AND APPARATUS FOR A VOLTAGE/FREQUENCY DRIVE
US	6229417	08-May-2001	OPERATOR FOR AN ELECTROMAGNETIC SWITCHING DEVICE
US	6232557	15-May-2001	NETWORK CABLE AND MODULAR CONNECTION FOR SUCH A CABLE
US	6233131	15-May-2001	ELECTROMAGNETIC OPERATOR FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONTROLLING SAME
US	6236277	22-May-2001	LOW DEVIATION SYNCHRONIZABLE CLOCK
US	D401910	01-Dec-1998	HOUSING FOR PHOTOELECTRIC CONTROL
US	D409144	04-May-1999	NETWORK CABLE CONNECTOR
US	D410627	08-Jun-1999	CABLE CONNECTOR INTERFACE
US	D413099	24-Aug-1999	MODULAR CONNECTOR
VE	43601	01-Aug-1986	TIME DELAY SWITCH MECHANISM
VE	48161	03-Jan-1991	MOMENTARY MAINTAINED LEVER OPERATED PUSHBUTTON

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Country	Application No.	Filing Date	Title
US	250072	27-May-1994	FLAT PANEL DISPLAY BACKLIGHTING
US	09/410270	30-Sep-1999	DIAGNOSTICS METHOD AND APPARATUS FOR USE WITH ENTERPRISE CONTROLS
US	841930	25-Feb-1992	CHARACTER INSPECTION SYSTEM
US	515877	16-Aug-1995	INDUSTRIAL CONTROLLER WITH OPTIMIZED EXECUTION OF RELAY LADDER LOGIC PROGRAMS
US	536232	29-Sep-1995	POWER SUBSTRATE ELEMENT TOPOLOGY
CA	1128572	27-Jul-1982	SEALED ENCLOSURES FOR ELECTRICAL DEVICES AND SEALS FOR SUCH ENCLOSURES
US	09/410159	30-Sep-1999	DISTRIBUTED REAL TIME OPERATING SYSTEM
EP	P3744293.7	28-Dec-1987	BRUSHLESS ROTARY POSITION TRANSDUCER
DE	P4104984.5	19-Feb-1991	SUPPORT FOR AUXILIARY CIRCUIT CARD
US	09/409958	30-Sep-1999	TIME SYNCHRONIZATION SYSTEM FOR INDUSTRIAL CONTROL NETWORK USING GLOBAL REFERENCE PULSES
JP	155018/90	13-Jun-1990	ELECTRIC MOTOR SPEED CONTROL APPARATUS AND METHOD
JP	196061/90	24-Jul-1990	INTERRUPT STRUCTURE FOR NETWORK INTERFACE CIRCUIT
US	09/406565	27-Sep-1999	REMOVABLE LATCH ASSEMBLY FOR AN ELECTRICAL SWITCH
EP	90109296.5	17-May-1990	FREQUENCY CONTROL BASED ON SENSING VOLTAGE FED TO AN INDUCTION MOTOR
US	500652	12-Jul-1995	PART ORIENTATION VISION SYSTEM
US	09/261275	03-Mar-1999	SELF-ORGANIZING INDUSTRIAL CONTROL SYSTEM IMPORTING NEIGHBOR CONSTRAINT RANGES
BR	PI9102445	13-Jun-1991	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
JP	152/91	07-Jan-1991	CONFIGURABLE COMMUNICATION INTERFACE MODULE FOR A PROGRAMMABLE CONTROLLER
DE	P3610433.7	27-Mar-1986	PROGRAMMABLE CONTROLLER WITH FUNCTION CHART INTERPRETER
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR AN ENTERPRISE-WIDE CONTROL ASSEMBLY DATABASE
JP	63657/92	19-Mar-1992	PROGRAMMABLE CONTROLLER PROCESSOR WITH A REMOVABLE FUNCTION CARD
US	09/675858	29-Sep-2000	ADJUSTABLE GAIN PRECISION FULL WAVE RECTIFIER WITH REDUCED ERROR

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
DE	P3615824.0	10-May-1986	TERMINAL BLOCK MARKING SURFACE
US	09/075277	08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ENTERPRISE-WIDE CONTROL UTILIZING A CONTROL ASSEMBLY OBJECT
US	334294	04-Nov-1994	APPARATUS USED WITH AC MOTORS FOR ELIMINATING LINE VOLTAGE REFLECTIONS
US	09/163106	29-Sep-1998	PROGRAM STRUCTURE AND METHOD FOR INDUSTRIAL CONTROLLER
US	09/670645	27-Sep-2000	METHOD AND APPARATUS FOR PRE-CHARGE CONTROL OF VSI
US	09/406654	27-Sep-1999	HIGH RELIABILITY INDUSTRIAL CONTROLLER USING TANDEM INDEPENDENT PROGRAMMABLE
US	015485	09-Feb-1987	POLARIZED CONNECTOR
EP	94303095.7	28-Apr-1994	DIGITAL COMMUNICATION NETWORK DATA TRANSMISSION METHOD AND APPARATUS
US	09/075467	08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ENTERPRISE-WIDE CONTROL
CA	2060225	29-Jan-1992	VELOCITY PROPORTIONAL INTEGRAL REGULATOR WITH NEGATIVE FEEDFORWARD TO CONTROL RESPONSE OF TORQUE DISTURBANCES
US	09/438111	10-Nov-1999	PERMANENT MAGNET ROTOR WITH SHORTING TURNS
US	062377	14-May-1993	LOW LEAKAGE REACTANCE TRANSFORMER WITH CO-PLANAR STRUCTURE
DE	P4227733.7	21-Aug-1992	CONFIGURABLE CACHE MEMORY
JP	91668/81	16-Jun-1981	EDGE TERMINATION FOR AN ELECTRICAL CIRCUIT DEVICE
JP	143326/91	14-Jun-1991	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
JP	225521/88	08-Sep-1988	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS
US	181127	13-Apr-1988	INDUSTRIAL CONTROL SYSTEMS WITH CONDITIONAL PROCESSOR
US		07-Aug-1997	HOUSING FOR PHOTOELECTRIC CONTROL
US	09/675863	29-Sep-2000	MINIMUM MOVE TOUCH PLANE SCANNING METHOD AND DEVICE
DE	P4210015.1	27-Mar-1992	HIGH SPEED COUNTER CIRCUIT
AU	16121/92	08-May-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
CA	2068155	07-May-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
US	09/663824	18-Sep-2000	NETWORK INDEPENDENT SAFETY PROTOCOL FOR INDUSTRIAL CONTROLLER
JP	121317/89	15-May-1989	IMAGE PROCESSOR

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
US	054651	26-Apr-1993	TRAY HANDLER
DE	69326811.5-08	20-Jan-2000	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
JP	38505/89	20-Feb-1989	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE
US	09/410251	30-Sep-1999	ELECTROMAGNETIC OPERATOR FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONTROLLING SAME
DE	P4135749.3	30-Oct-1991	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
US	09/559625	27-Apr-2000	METHOD AND SYSTEM FOR SELECTING CONTROLLER OUTPUT VALUE SOURCE
US	60/084793	08-May-1998	A SYSTEM, METHOD AND ARTICLE OF AN ENTERPRISE-WIDE CONTROL SYSTEM
JP	5-338584/93	28-Dec-1993	PHOTOELECTRIC CONTROL UNIT ADAPTED FOR DETERMINING ITS OWN OPERATING MARGIN
DE	P4226536.3	11-Aug-1992	PROGRAMMABLE CONTROLLER WITH AN OPERATOR MESSAGING FUNCTION
EP	92102899.9	21-Feb-1992	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
EP	91111086.4	04-Jul-1991	RECURRENT NEURAL NETWORKS TEACHING SYSTEM
US	09/408864	30-Sep-1999	METHOD AND APPARATUS FOR GENERATING REFERENCE VALUES FOR A MOTION CONTROL LOOP IN AN INDUSTRIAL CONTROL SYSTEM
BR	P19101755-6	30-Apr-1991	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SEQUENCING CONTROL ASSEMBLIES IN AN ENTERPRISE-WIDE CONTROL SYSTEM
IT	91109606.3	12-Jun-1996	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
JP	502777/86		TWO SPEED AUTOMATIC SHIFT DRILL
US	09/407474	28-Sep-1999	SELF-ORGANIZING INDUSTRIAL CONTROL SYSTEM USING A SPECIFIC PROCESS TO EVALUATE BIDS
JP	285026/91	30-Oct-1991	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
EP	98 110 254.4	05-Jun-1998	SERIAL DATA ISOLATOR FOR INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
US		24-Aug-1998	A METHOD OF MAKING A MULTILAYER CIRCUIT BOARD HAVING A WINDOW EXPOSING AN ENHANCED CONDUCTIVE LAYER FOR USE AS AN INSULATED MOUNTING AREA
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR CONSTRUCTING A SEQUENCE DEPENDENCY FROM A TIME-BASE PROCESS REPRESENTATION IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	09/546093	10-Apr-2000	POINTBUS ARCHITECTURE AND AUTOMATIC SEQUENTIAL ADDRESSING PROTOCOL

<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
US	09/672887	28-Sep-2000	DIN RAIL ATTACHMENT METHOD AND APPARATUS
US	09/816181	23-Mar-2001	OPERATOR FOR AN ELECTROMAGNETIC SWITCHING DEVICE
EP	86112981.5	20-Sep-1986	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
CA	2034897	24-Jan-1991	SUPPORT FOR AUXILIARY CIRCUIT CARD
BR	PI9102459	14-Jun-1991	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR GENERATING DIAGNOSTICS IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	967948	27-Oct-1992	I/O MODULE WITH SERIAL DATA RING TRANSFER
US	09/409797	30-Sep-1999	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR GENERATING DIAGNOSTICS IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	940900	30-Sep-1997	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR TIME SYNCHRONIZED SIMULATION OF AN INDUSTRIAL ENVIRONMENT
DE	86109475.3	11-Jul-1986	DISC DRIVE ISOLATION SYSTEM
US	841232	29-Apr-1997	EMBEDDED FLASH PROGRAMMING TOOL
IT	93110447.5	30-Jun-1993	PROGRAMMABLE CONTROLLER WITH LADDER DIAGRAM MACRO INSTRUCTIONS
US	09/086102	28-May-1998	HIGH SPEED ACQUISITION AND CALCULATION OF DIMENSIONAL VARIABLES WITH VIBRATION AND SKEW ERROR REDUCTION
JP	138637/93	10-Jun-1993	PROGRAMMABLE CONTROLLER WITH BACKUP CAPABILITY
JP	101429/93	27-Apr-1993	DATA INTERFACE INITIALIZATION APPARATUS AND METHOD FOR A PROGRAMMABLE CONTROLLER
DE	P4023471.1	24-Jul-1990	INTERRUPT STRUCTURE FOR NETWORK INTERFACE CIRCUIT
US	09/805410	13-Mar-2001	MICROELECTRICAL MECHANICAL SYSTEM (MEMS) ELECTRICAL ISOLATOR WITH REDUCED SENSITIVITY TO INERTIAL NOISE
BR	PI9003523-2	20-Jul-1990	INTELLIGENT NETWORK INTERFACE CIRCUIT
MX	9102710	19-Dec-1991	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS
US	09/407475	28-Sep-1999	GROUNDED ISOLATION SYSTEM
US	09/025004	17-Feb-1998	MODULAR FIBER HUB BLOCK
US	634254	26-Dec-1990	97AB031-A: MEDIA INDEPENDENT MODULAR COMMUNICATION REPEATER SYSTEM PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
JP	247891/89	22-Sep-1989	PROGRAMMABLE CONTROLLER MODULE
FR	9112774	16-Oct-1991	OPTICAL SENSOR PROJECTING AN IMAGE OF THE SENSOR FOR ALIGNMENT PURPOSES
JP	171168/91	11-Jul-1991	RECURRENT NEURAL NETWORKS TEACHING SYSTEM
US	941154	30-Sep-1997	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MANAGING AND CONTROLLING ONE OR MORE SIMULATED PROCESSES INCLUDING COLLISION DETECTION
EP	96120669.5	20-Dec-1996	CIGARETTE DENSITY MONITOR
JP	41531/91	07-Mar-1991	PROGRAMMABLE CONTROLLER COMMUNICATION MODULE
US	09/407603	28-Sep-1999	ADJUSTABLE GAIN PRECISION FULL WAVE RECTIFIER WITH REDUCED ERROR
US	324265	14-Mar-1989	THICK FILM PROGRAMMABLE LINK
US	920786	29-Aug-1997	HARD DISK DRIVE MOUNTING AND VIBRATION ISOLATION SYSTEM FOR AN INDUSTRIAL COMPUTER
US	09/406509	28-Sep-1999	HIGH RESOLUTION CURRENT SENSING APPARATUS
US	09/407618	28-Sep-1999	CONNECTOR AND CABLE SYSTEM FOR PANEL-MOUNTED CIRCUITRY
JP	118045/87	14-May-1987	TOKEN PASSING NETWORK UTILIZING ACTIVE NODE TABLE
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SEQUENCING TIMED EVENTS IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	536533	29-Sep-1995	BACKPLANE DATA TRANSFER TECHNIQUE FOR INDUSTRIAL AUTOMATION CONTROLLERS
EP	98 110 255.1	05-Jun-1998	BUS ISOLATOR FOR INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
EP		29-Mar-2001	SELF ORGANIZING INDUSTRIAL CONTROL SYSTEM USING BIDDING PROCESS
FR	86109475.3	11-Jul-1986	DISC DRIVE ISOLATION SYSTEM
US	09/410214	30-Sep-1999	PROGRAMMABLE LOGIC CONTROLLER MODULE ASSEMBLY AND LOCKING SYSTEM
CA	2061231	14-Feb-1992	FIBER OPTIC COLLIMATOR FOR POSITION ENCODERS
EP	94303099.9	28-Apr-1994	METHOD AND APPARATUS FOR EXCHANGING DIFFERENT CLASSES OF DATA DURING DIFFERENT TIME INTERVALS
JP	228687/92	27-Aug-1992	CONFIGURABLE CACHE MEMORY
JP	100928/91	02-May-1991	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
US	546166	28-Jun-1990	INDUSTRIAL CONTROL SYSTEM DATA ROUTING MECHANISM
CA	2100121	08-Jul-1993	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
KR	6700/91	25-Apr-1991	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR

<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
US	09/075276	08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR BUILDING A USER-INTERFACE FOR AN ENTERPRISE-WIDE CONTROL SYSTEM
JP	227947/86	26-Sep-1986	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
JP	271284/91	18-Oct-1991	OPTICAL SENSOR PROJECTING AN IMAGE OF THE SENSOR FOR ALIGNMENT PURPOSES
DE	86112981.5	20-Sep-1986	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
US	09/409126	30-Sep-1999	METHOD FOR INTERRUPTING AN ELECTRICAL CIRCUIT
US	09/164452	30-Sep-1998	PARASITICALLY POWERED SENSING DEVICE
US	056445	03-May-1993	NETWORK NODE TAP
US	09/407664	28-Sep-1999	AUTOMATIC NEGOTIATION WITH VENDOR FOR UPGRADING
US	414751	29-Sep-1989	METHOD AND APPARATUS FOR COMMUNICATING TWO TYPES OF REAL-TIME I/O DATA IN ONE PAIR OF MESSAGES
US	09/669539	26-Sep-2000	PROTECTIVE ENCAPSULATION FOR A PHOTOTRANSDUCER
EP	90115290.0	11-Jul-1986	DISC DRIVE ISOLATION SYSTEM
US	455675	31-May-1995	LOW LEAKAGE REACTANCE TRANSFORMER
JP	192430/84	13-Sep-1984	METHOD AND CIRCUIT FOR DC MOTOR FIELD REGULATION WITH SPEED FEEDBACK
CA	2042720	16-May-1991	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
CA	2019373	20-Jun-1990	INTERRUPT STRUCTURE FOR NETWORK INTERFACE CIRCUIT
DE	P4024570.5	02-Aug-1990	IMAGE PROCESSOR WITH DARK CURRENT COMPENSATION
US	09/407662	28-Sep-1999	MODULAR EMERGENCY STOP RELAY SYSTEM
JP	325092/90	27-Nov-1990	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
FI	921820	23-Apr-1992	ELECTRIC SWITCH
CA	2100390	13-Jul-1993	GAS DEFLECTION AND ISOLATION SYSTEM FOR USE WITH A HIGH POWER CIRCUIT BREAKER
WO	99/22971	29-Sep-1999	SELF ORGANIZING INDUSTRIAL CONTROL SYSTEM USING BIDDING PROCESS
EP	88108757.1	01-Jun-1988	VIDEO IMAGE PROCESSING SYSTEM
JP	2409/90	09-Jan-1990	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
US	09/410252	30-Sep-1999	REACTIVE DROOP COMPENSATION SYSTEM AND METHOD
JP	113122/91	17-May-1991	SELECTABLE CONTROL FUNCTION INJECTION MOLDING CONTROLLER

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
CA	2044005	06-Jun-1991	INTELLIGENT NETWORK INTERFACE CIRCUIT
DE	P4038220.6	30-Nov-1990	IMAGE PROCESSOR WITH ILLUMINATION VARIATION COMPENSATION
EP	92107097.5	25-Apr-1992	ELECTRIC SWITCH
US	09/621847	24-Jul-2000	PWM RECTIFIER HAVING DE-COUPLED POWER FACTOR AND OUTPUT CURRENT CONTROL LOOPS
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR CREATING A VISUALIZATION MECHANISM FOR AN ENTERPRISE-WIDE CONTROL
US	09/676547	29-Sep-2000	METHOD AND APPARATUS FOR INTERRUPTING CURRENT THROUGH DEIONIZATION OF THE ARC PLASMA
US	08/551606	01-Nov-1995	INDUSTRIAL CONTROLLER WITH DISPLAY OF RUNG EXECUTION
US	08/537222	29-Sep-1995	A METHOD OF MAKING A MULTILAYER CIRCUIT BOARD HAVING A WINDOW EXPOSING AN ENHANCED CONDUCTIVE LAYER FOR USE AS AN INSULATED MOUNTING AREA
US	09/675861	29-Sep-2000	METHOD FOR SENSING ELECTRICAL CURRENT
US	250132	27-May-1994	COMMUNICATION FOR INDUSTRIAL CONTROLLER WITH FAULT TOLERANCE
BR	9903410-7	22-Jun-1999	METHOD AND APPARATUS FOR MEASURING THE DENSITY OF A SUBSTANCE HAVING FREE WATER COMPENSATION
US	09/290455	12-Apr-1999	ROLLING MILLS WITH SHARED CONSTRAINT RANGES
US	08/537222	29-Sep-1995	A METHOD OF MAKING A MULTILAYER CIRCUIT BOARD HAVING A WINDOW EXPOSING AN ENHANCED CONDUCTIVE LAYER FOR USE AS AN INSULATED MOUNTING AREA
JP	24510/91	19-Feb-1991	SUPPORT FOR AUXILIARY CIRCUIT CARD
IN	413/DEL/92	13-May-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
US	09/675243	29-Sep-2000	METHOD AND APPARATUS FOR IDENTIFYING A WAVEFORM PERIOD
US	523877	06-Sep-1995	MOTION CONTROLLER WITH REMOTE LINKING
US	09/677037	29-Sep-2000	HIGHLY SENSITIVE CAPACITANCE COMPARISON
JP	196060/90	24-Jun-1990	INTELLIGENT NETWORK INTERFACE CIRCUIT
US	433774	03-May-1995	MOTOR CONTROLLER WITH CIRCUIT INTERRUPTER AND METHOD FOR INTERRUPTING POWER TO A MOTOR CONTROLLER
US	09/644635	23-Aug-2000	STROBED SYNCHRONIZATION PROVIDING DIAGNOSTICS IN A DISTRIBUTED SYSTEM
US	08/711378	05-Sep-1996	OUTPUT WEIGHTED PARTITIONING METHOD FOR A CONTROL PROGRAM IN A HIGHLY DISTRIBUTED CONTROL SYSTEM

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US	09/547586	12-Apr-2000	METHOD OF CONTROLLING SPEED AND ROTATION COUNTS OF THE SPINDLE OF AN EXACT SHEET-COUNT METERED WINDER
US	941614	30-Sep-1997	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MANAGING AND CONTROLLING ONE OR MORE SIMULATED PROCESSES IN A REALISTIC MANNER
US	09/164207	30-Sep-1998	MOVABLE CONTACT ASSEMBLY FOR AN ELECTRICAL CONTACTOR
US	09/303940	03-May-1999	REDUNDANT, MULTITASKING INDUSTRIAL CONTROLLERS WITH SYNCHRONIZED DATA TABLES
US	09/676204	29-Sep-2000	METHOD AND APPARATUS FOR EXTINGUISHING AN ARC THROUGH MATERIAL SURFACE ABLATION
JP	153913/84	09-Sep-1984	POSITION TRANSDUCER
US	08/999854	30-Jun-1999	MULTI-TASKING OPERATING SYSTEM FOR INDUSTRIAL CONTROLLER
JP	205913/90	02-Aug-1990	IMAGE PROCESSOR WITH DARK CURRENT COMPENSATION
US	09/408697	30-Sep-1999	INTERFACE FOR INDUSTRIAL CONTROLLER NETWORK CARD
DE	P4100198.2	05-Jan-1991	CONFIGURABLE COMMUNICATION INTERFACE MODULE FOR A PROGRAMMABLE CONTROLLER
DE	P3831520.3	16-Sep-1988	ENCODER AND RESOLVER SIGNAL PROCESSING CIRCUIT
US	09/407661	28-Sep-1999	MULTI-PHASE GROUND FAULT CURRENT SENSOR SYSTEM
JP	277362/89	26-Oct-1989	MOTOR CONTROLLER WITH OPTICAL SCR'S
US	09/670926	28-Sep-2000	COMPONENT LOADER FOR INDUSTRIAL CONTROL DEVICE PROVIDING RESOURCE SEARCH CAPABILITIES
US	09/190688	12-Nov-1998	REFLOW SELECTIVE SHORTING
US	752416	30-Aug-1991	CONFIGURABLE CACHE MEMORY
EP	90117639.6	13-Sep-1990	METHOD AND DEVICE FOR PROTECTING STARTERS FROM FAULT CURRENTS
US	09/219726	22-Dec-1998	METHOD FOR INTERRUPTING AN ELECTRICAL CIRCUIT
IT	67186/BE/2000	20-Jan-2000	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
JP	104551/93	30-Apr-1993	SOFT-CLOSURE ELECTRICAL CONTACTOR
US	09/300626	27-Apr-1999	RELAY CONFIGURATION
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ORGANIZING AND AUDITING TIMED ACTIVITIES IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	09/409568	30-Sep-1999	DATA STRUCTURE FOR USE IN ENTERPRISE
US	09/672621	29-Sep-2000	ROTATING GLAND HEADER METHOD AND APPARATUS

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
US	09/075404	08-May-1998	AN OBJECT-ORIENTED SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ENTERPRISE-WIDE CONTROL
US	08/921993	28-Aug-1997	VIDEO CAMERA TIMING GENERATOR
US	US00/35258	22-Dec-2000	SAFETY NETWORK FOR INDUSTRIAL CONTROLLER HAVING REDUCED BANDWIDTH REQUIREMENTS
IT	71256/BE/99	07-Jan-2000	NUMERICAL CONTROL SYSTEM FOR IRREGULAR POCKET MILLING
BR	PI8901253-4	20-Mar-1989	PROGRAMMABLE CONTROLLER WITH MULTIPLE TASK PROCESSORS
US	265544	24-Jun-1994	SIMPLIFIED PROTOCOL FOR EXPANDING A FIXED WIDTH BUS IN AN INDUSTRIAL CONTROLLER
JP	192432/84	13-Sep-1984	COMPENSATED RAMP GENERATING CIRCUIT FOR CONTROLLING SCR FIRING
DE	69326852.208	21-Dec-1999	NUMERICAL CONTROL SYSTEM FOR IRREGULAR POCKET MILLING
EP	88116268.9	30-Sep-1988	ENCLOSURE FOR ELECTRICAL SENSOR
BR	PI9201450-0	16-Apr-1992	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
S	532134	22-Sep-1995	AUTO BOOST FOR VOLTAGE/FREQUENCY MOTOR CONTROLLER
BR	PI9006038	26-Dec-1989	CONTROLLER FOR STARTING AND STOPPING ELECTRIC MOTORS
JP	349672/92	12-Nov-1992	FLASH MEMORY CIRCUIT AND METHOD OF OPERATION
IN	200/DEL/92	06-Mar-1992	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
BR	9102826-4	04-Jul-1991	INTELLIGENT NETWORK INTERFACE CIRCUIT
BR	PI9105617-9	26-Dec-1991	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS
US	09/791341	23-Feb-2001	ELECTROMAGNETIC OPERATOR FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONTROLLING SAME
US	09/133782	12-Aug-1998	HALL EFFECT CURRENT SENSOR PACKAGE
US	09/165014	30-Sep-1998	INDUSTRIAL CONTROL SYSTEMS HAVING INPUT/OUTPUT CIRCUITS WITH PROGRAMMABLE INPUT/OUTPUT CHARACTERISTICS
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR UTILIZING SEQUENCED TIMED EVENTS TO GENERATE CODE FOR AN ENTERPRISE-WIDE DATA MODULE
JP	107805/86	13-May-1986	TERMINAL BLOCK MARKING SURFACE
JP	38506/89	20-Feb-1989	METHOD FOR STOPPING AN ELECTRIC MOTOR
JP	336994/90	30-Nov-1990	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
US	018904	08-Feb-1993	PROCESS OPTIMIZATION USING A NEURAL NETWORK

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Country	Application No.	Filing Date	Title
US	09/193783	17-Nov-1998	NETWORK INTERFACE FOR INDUSTRIAL CONTROLLER PROVIDING APPLICATION PROGRAMMER INTERFACE
US	09/792702	23-Feb-2001	ELECTROMAGNETIC OPERATOR FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONTROLLING SAME
BR	PI9000210-5	19-Jan-1990	MOTOR CONTROLLER WITH OPTICAL SCR'S
US	420469	12-Apr-1995	CIRCUIT BOARD ARCHITECTURE FOR A MOTOR CONTROLLER
DE	P4010828.7	04-Apr-1990	INDUSTRIAL CONTROLLER WITH DECOMPILABLE USER PROGRAM
DE	P3744293.7	28-Dec-1987	BRUSHLESS ROTARY POSITION TRANSDUCER
DE	P4317729.8	27-May-1993	PROGRAMMABLE CONTROLLER WITH BACKUP CAPABILITY
BR	PI8901348	22-Mar-1989	PROGRAMMABLE CONTROLLER WITH PARALLEL PROCESSORS
EP	94303098.1	28-Apr-1994	COMMUNICATION NETWORK WITH TIME COORDINATED STATION ACTIVITY
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR PREDICTING THE CONTROL ASSEMBLIES FOR AN ENTERPRISE-WIDE CONTROL
US	08/763032	10-Dec-1996	METHODS AND APPARATUS FOR DYNAMIC CONFIGURATION OF A PROCESSOR MODULE IN A PROGRAMMABLE CONTROLLER HAVING A REMOVABLE FUNCTION CARD
US	09/410106	30-Sep-1999	SYSTEM AND METHOD FOR ON-LINE HALL SENSOR PROGRAMMING
FR	99 109 110.9	07-May-1999	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
US	704766	23-May-1991	PROCESS OPTIMIZATION USING A NEURAL NETWORK
US	365979	28-Dec-1994	HIGH SPEED RELAY LOGIC PROCESSOR
GB	9102255.8	01-Feb-1991	PROGRAMMABLE CONTROLLER COMMUNICATION MODULE
US	385413	08-Feb-1995	HEARTBEAT COMMUNICATIONS
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR AN ENTERPRISE-WIDE CONTROL SEQUENCE AND CHART DATABASE
US	532064	25-Oct-1995	DUAL MODE CONTROL OF COLD CATHODE FLUORESCENT LAMP
US	043175	05-Apr-1993	SYSTEM FOR INTERCONNECTING I/O MODULES FOR DATA COMMUNICATIONS OVER A COMMON BACKPLANE
US	212533	14-Mar-1994	DETERMINISTIC COMMUNICATION NETWORK FOR INDUSTRIAL CONTROL
IT	86109475.3	11-Jul-1986	DISC DRIVE ISOLATION SYSTEM
US	09/408636	30-Sep-1999	SYSTEM LEVEL DATA FLOW PROGRAMMING INTERFACE FOR A MULTI-AXIS INDUSTRIAL CONTROL SYSTEM

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
JP	2664/88	11-Jan-1988	MACHINE VISION SYSTEM WITH ILLUMINATION VARIATION COMPENSATION
US	653854	28-May-1996	INSULATED SURFACE MOUNT CIRCUIT BOARD CONSTRUCTION
JP	130653/93	01-Jun-1993	PROGRAMMABLE CONTROLLER WITH LADDER DIAGRAM MACRO INSTRUCTIONS
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ORGANIZING AND DISPLAYING TIMED ACTIVITIES AND SEQUENCED REQUESTS IN AN ENTERPRISE-WIDE CONTROL SYSTEM
BR	PI9100973-1	12-Mar-1991	ELECTRIC MOTOR CONTROLLER WITH BYPASS CONTACTOR
US	09/407618	28-Sep-1999	CONNECTOR AND CABLE SYSTEM FOR PANEL-MOUNTED CIRCUITRY
US	536723	29-Sep-1995	METHOD AND APPARATUS FOR RMS CURRENT MEASUREMENT IN INDUCTION MOTORS WITHOUT A CURRENT TRANSFORMER
US	09/407604	28-Sep-1999	SELF-ORGANIZING INDUSTRIAL CONTROL SYSTEM USING ITERATIVE REVERSE MODELING TO EVALUATE BIDS
US	09/832389	11-Apr-2001	INTEGRATED DC LINK CHOKE FOR SUPPRESSING COMMON-MODE VOLTAGE IN A MOTOR DRIVE
JP	134931/82	07-Sep-1982	
US	08/994517	19-Dec-1997	NETWORKED FILE OPERATIONS FOR COMPUTER NUMERICAL CONTROLS
US	08/841232	29-Apr-1997	EMBEDDED FLASH PROGRAMMING TOOL
CA	1139407	11-Jan-1983	MULTIPROCESSOR NUMERICAL CONTROL SYSTEM
US	941355	30-Sep-1997	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR MANAGING AND CONTROLLING ONE OR MORE SIMULATED SENSORS
US	09/573750	18-May-2000	APPARATUS AND METHOD FOR FAST FET SWITCHING IN A DIGITAL OUTPUT DEVICE
US	09/408670	30-Sep-1999	DISTRIBUTED REAL-TIME OPERATING SYSTEM PROVIDING INTEGRATED INTERRUPT MANAGEMENT
JP	215200/92	12-Aug-1992	PROGRAMMABLE CONTROLLER WITH AN OPERATOR MESSAGING FUNCTION
EP	99 111 557.7	15-Jun-1999	METHOD AND APPARATUS FOR MEASURING THE DENSITY OF A SUBSTANCE HAVING FREE WATER COMPENSATION
BR	PI 910 35 86	31-Aug-1990	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ORGANIZING TIMED ACTIVITIES IN AN ENTERPRISE-WIDE CONTROL SYSTEM
US	033441	18-Mar-1993	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS

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JP	PNID1872	29-Nov-1994	SWITCHING DEVICE
EP	91122049.9	21-Dec-1991	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS
US	169087	17-Dec-1993	INSPECTION SYSTEM FOR CYLINDRICAL SURFACES OR THE LIKE
DE	P3931887.7	24-Sep-1989	VIDEO IMAGE STORAGE SYSTEM
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR ENTERPRISE-WIDE CONTROL ASSEMBLY DATABASE WITH A CAUSAL MODEL
JP	34790/92	21-Feb-1992	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
EP	00117058.8	09-Aug-2000	DISTRIBUTED REAL TIME OPERATING SYSTEM
US	062375	14-May-1993	LOW LEAKAGE REACTANCE TRANSFORMER
AU	66629/90	15-Nov-1990	MASTER SLAVE INDUSTRIAL TOKEN PASSING
US	580716	11-Sep-1990	ISOLATION INTERFACE FOR A CONTROLLER I/O
CA	2061182	13-Feb-1992	PROGRAMMABLE CONTROLLER PROCESSOR WITH A REMOVABLE FUNCTION CARD
US	08/561506	20-Nov-1995	INDUSTRIAL CONTROLLER PERMITTING REMOVAL AND INSERTION OF CIRCUIT CARDS WHILE UNDER POWER
US	09/406508	28-Sep-1999	HALL EFFECT CURRENT SENSOR SYSTEM PACKAGING
US	09/406514	28-Sep-1999	ELECTRICAL NOISE IMMUNE CURRENT SENSING SYSTEM
US	09/666438	21-Sep-2000	SAFETY NETWORK FOR INDUSTRIAL CONTROLLER PROVIDING REDUNDANT CONNECTIONS ON SINGLE MEDIA
US	09/832969	11-Apr-2001	MODULAR FIBER HUB BLOCK 97AB031-A: MEDIA INDEPENDENT MODULAR COMMUNICATION REPEATER SYSTEM
EP	90119943.0	18-Oct-1990	MOLDED ELECTRIC CIRCUIT PACKAGE
EP	90113899.0	20-Jul-1990	INTELLIGENT NETWORK INTERFACE CIRCUIT
US	09/193927	16-Nov-1998	PROGRAMMABLE LOGIC CONTROLLER SYSTEM AND METHOD FOR MODULE NUMBER ASSIGNMENT
BR	PI9006541-7	21-Dec-1990	MOTOR CONTROLLER WITH AN IMPROVED STOPPING TECHNIQUE
JP	122716/89	16-May-1989	PROGRAMMABLE CONTROLLER MODULE IDENTIFICATION BY INTERCONNECTING THE INPUT AND OUTPUT PORTS OF A MODULE IN A PREDEFINED MANNER
US	433774	03-May-1995	MOTOR CONTROLLER WITH CIRCUIT INTERRUPTER AND METHOD FOR INTERRUPTING POWER TO A MOTOR CONTROLLER
CA	2034878	24-Jan-1991	PROGRAMMABLE CONTROLLER COMMUNICATION MODULE

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
IT	99 109 110.9	07-May-1999	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
US	09/407473	28-Sep-1999	PROCESS COMMUNICATION MULTIPLEXER
US	09/406659	27-Sep-1999	PROGRAMMABLE SYNCHRONOUS AND ASYNCHRONOUS BLOCK EXECUTION FOR A COMPUTER NUMERICAL CONTROL
JP	138037/87	01-Jun-1987	FLUX PROFILE CONTROL FOR STARTUP OF AN INDUCTION MOTOR
EP	98 110 256.9	05-Jun-1998	LOW VOLTAGE INDUSTRIAL CONTROL SYSTEM PROVIDING INTRINSICALLY SAFE OPERATION
JP	143325/91	14-Jun-1991	INJECTION MOLDING CONTROLLER WITH PROCESS VARIABLE LEARNING
BR	PI8900817-0	23-Feb-1989	MOTOR STOPPAGE DETECTION USING BACK EMF VOLTAGE
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR DEFINING A CONTROL ASSEMBLY UTILIZING A WIZARD IN AN ENTERPRISE-WIDE CONTROL
US	09/672932	28-Sep-2000	AUTOMATION CONTROL ENCLOSURE HAVING A GLANDPLATE TO FACILITATE INPUT AND OUTPUT CONNECTIONS
JP	71561/92	27-Mar-1992	HIGH SPEED COUNTER CIRCUIT
JP	6173/86	14-Jan-1986	CROSS COUPLED CURRENT REGULATOR
US	09/167006	29-Sep-1998	ELECTROMAGNETIC DISK BRAKE WITH RUBBER FRICTION DISK BRAKING SURFACE
CA	2019374	20-Jun-1990	METHOD AND DEVICE FOR PROTECTING STARTERS FROM FAULT CURRENTS
US	09/671381	27-Sep-2000	PROTOCOL FOR EXTENDED DATA TRANSFER IN SCAN-BASED INDUSTRIAL CONTROLLER I/O SYSTEM
US	09/163104	29-Sep-1998	CONTROLLER ASSEMBLY HAVING A BASE UNIT WITH A DOCKABLE PROCESSOR UNIT
US	09/165013	09-Apr-2001	ELECTRIC CONTACTOR HOUSING
US	09/546089	10-Apr-2000	POINTBUS ARCHITECTURE AND AUTOMATIC SEQUENTIAL ADDRESSING
US	60/127067	31-Mar-1999	HYBRID AUTONOMOUS CONTROL SYSTEM
US	09/075380	08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR UTILIZING A CONTROL COMPONENT TO EFFECTUATE ENTERPRISE-WIDE CONTROL
BR	PI9202212-0	10-Jun-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
US	09/164418	30-Sep-1998	STATIONARY CONTACT FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONDUCTING CURRENT THROUGH SAME
CA	2061960	27-Feb-1992	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD

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Country	Application No.	Filing Date	Title
US	09/406657	27-Sep-1999	MULTIPLE CONNECTION ARCHITECTURE FOR COMMUNICATION WITH A COMPUTER NUMERICAL CONTROL RESIDENT IN A WORKSTATION AND OTHER NETWORKED COMPUTER NUMERICAL CONTROLS
CA	2070453	05-Jun-1992	TERMINAL BLOCK SEGMENT WITH FEET FOR MOUNTING ON TRACKS OF TWO DIFFERENT WIDTHS
US	09/175011	19-Oct-1998	VIRTUAL TOOL BOX FOR USE WITH INDUSTRIAL CONTROL SYSTEM
EP	91107695.8	13-May-1991	SELECTABLE CONTROL FUNCTION INJECTION MOLDING CONTROLLER
DE	99 109 110.9	07-May-1999	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
SE	0588005	20-Jan-2000	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
JP	174854/88	13-Jul-1988	ENCODER AND RESOLVER SIGNAL PROCESSING CIRCUIT
US	09/406516	28-Sep-1999	CONVERSION OF DESK-TOP OPERATING SYSTEM FOR REAL-TIME CONTROL USING INSTALLABLE INTERRUPT SERVICE ROUTINES
GB	86109475.3	11-Jul-1986	DISC DRIVE ISOLATION SYSTEM
JP	278852/90	17-Oct-1990	MOLDED ELECTRIC CIRCUIT PACKAGE
US	09/667145	21-Sep-2000	SAFETY NETWORK FOR INDUSTRIAL CONTROLLER ALLOWING INITIALIZATION ON STANDARD NETWORKS
KR	4907/92	26-Mar-1992	ELECTRIC MOTOR CONTROL APPARATUS AND METHOD
CA	2038657	20-Mar-1991	ZERO MARK FOR OPTICAL ENCODER USING STATOR MASK PATTERNS AND ROTOR PATTERNS
BR	PI8906324	07-Dec-1989	MOTOR STOPPAGE APPARATUS AND METHOD USING BACK EMF VOLTAGE
JP	PNID1887	11-Jun-1994	DIGITAL FILTER
EP	93310616.3	30-Dec-1993	OPERATOR INTERFACE FOR A PHOTOELECTRIC CONTROL UNIT
US	09/637051	11-Aug-2000	TERMINAL BLOCK SUPPORTED PRINTED CIRCUIT CARDS FOR COMPACT PROGRAMMABLE LOGIC CONTROLLER
US	790251	25-Apr-1977	DIGITAL CONTROL SYSTEM WITH BOOLEAN PROCESSOR
US	940675	30-Sep-1997	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR SIMULATED SENSOR I/O LINKAGE
US	09/193388	17-Nov-1998	SELF-SEALING, SELF-CONTAINED ELECTROMAGNETIC DISK BRAKE
JP	164883/86	15-Jul-1986	DISC DRIVE ISOLATION SYSTEM
JP	79604/93	06-Apr-1993	NUMERICAL CONTROL SYSTEM FOR IRREGULAR POCKET MILLING
EP	92104763.5	19-Mar-1992	PROGRAMMABLE CONTROLLER PROCESSOR WITH A REMOVABLE FUNCTION CARD

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US	09/115121	14-Jul-1998	DATA RATE DOUBLER FOR ELECTRICAL BACKPLANE
CA	2042954	21-May-1991	INJECTION MOLDING CONTROLLER WITH CONTROLLED VARIABLE LEARNING
US		08-May-1998	A SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR AN ENTERPRISE-WIDE CONTROL AND DISPLAY SYSTEM
JP	141928/88	10-Jun-1988	BIT ORIENTED COMMUNICATIONS NETWORK
GB	93110940.9	20-Jan-2000	PILOT LIGHT INTERFACE FOR SMALL INDUSTRIAL CONTROLS
US	09/664154	18-Sep-2000	SAFETY NETWORK FOR INDUSTRIAL CONTROLLER HAVING REDUCED BANDWIDTH REQUIREMENTS
US	09/409331	30-Sep-1999	LOW COST MATERIAL FOR MULTI-BIT REMOTE SENSING
US	09/036888	06-Mar-1998	SPRING CLIP FOR ELECTRONIC DEVICE AND HEAT SINK ASSEMBLY
US	09/408696	30-Sep-1999	DISTRIBUTED REAL-TIME OPERATING SYSTEM PROVIDING DYNAMIC GUARANTEED MIXED PRIORITY SCHEDULING FOR COMMUNICATIONS AND
US	09/165013	30-Sep-1998	ELECTRIC CONTACTOR HOUSING
US	09/526970	16-Mar-2000	TEMPLATE LANGUAGE EXTENSIONS TO RELAY LADDER LOG
US	09/574982	19-May-2000	SITUATIONAL AWARE OUTPUT CONFIGURATION AND EXECUTION
KP	99/22971	29-Sep-1999	SELF ORGANIZING INDUSTRIAL CONTROL SYSTEM USING BIDDING PROCESS
US	09/163931	29-Sep-1998	INDUSTRIAL CONTROL SYSTEMS HAVING INPUT/OUTPUT CIRCUITS WITH PROGRAMMABLE INPUT/OUTPUT CHARACTERISTICS
US	09/175009	19-Oct-1998	WALK-THROUGH HUMAN/MACHINE INTERFACE FOR INDUSTRIAL CONTROL SYSTEM
EP	93106585.8	22-Apr-1993	SOFT-CLOSURE ELECTRICAL CONTACTOR
DE	93110447.5	30-Jun-1993	PROGRAMMABLE CONTROLLER WITH LADDER DIAGRAM MACRO INSTRUCTIONS
US	09/190688	12-Nov-1998	REFLOW SELECTIVE SHORTING
US	09/209896	11-Dec-1998	FILTER TO MINIMIZE OVERVOLTAGES IN AC MOTORS
US	09/219143	22-Dec-1998	APPARATUS FOR INTERRUPTING AN ELECTRICAL CIRCUIT
US		01-Mar-1999	METHODS AND APPARATUS FOR DYNAMIC CONFIGURATION OF A PROCESSOR MODULE IN A PROGRAMMABLE CONTROLLER HAVING A REMOVABLE FUNCTION CARD
EP	99200352.5	30-Dec-1992	OPERATOR INTERFACE FOR A PHOTOELECTRIC CONTROL UNIT
US	315538	30-Sep-1994	MULTI-TASKING OPERATING SYSTEM FOR INDUSTRIAL CONTROLLER

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US	09/438111	10-Nov-1999	SPRING CLIP FOR ELECTRONIC DEVICE AND HEAT SINK ASSEMBLY
EP	92105497.9	31-Mar-1992	FIBER OPTIC COLLIMATOR FOR POSITION ENCODERS
JP	150827/92	10-Jun-1992	ELECTRIC CURRENT MEASUREMENT APPARATUS FOR A SOLID STATE MOTOR CONTROLLER
US	29/076216	26-Aug-1997	HOUSING FOR PHOTOELECTRIC CONTROL
US	09/086102	28-May-1998	HIGH SPEED ACQUISITION AND CALCULATION OF DIMENSIONAL VARIABLES WITH VIBRATION AND SKEW ERROR REDUCTION
US	09/710326	09-Nov-2000	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
JP	189027/89	24-Jul-1989	PROGRAMMABLE CONTROLLER MODULE RACK WITH A RELATIVE RACK SLOT ADDRESSING MECHANISM
EP	96 115 349.1	25-Sep-1996	WIRELESS CIRCUIT BOARD SYSTEM FOR A MOTOR CONTROLLER
US	09/670656	27-Sep-2000	DYNAMIC BRAKING METHOD AND APPARATUS
US	734842	24-Jul-1991	I/O MODULE WITH SERIAL DATA RING TRANSFER
FR	86112981.5	20-Sep-1986	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
FR	90/14752	26-Nov-1990	IMAGE PROCESSOR WITH ILLUMINATION VARIATION COMPENSATION
CA	2048944	12-Aug-1991	PROCESSOR FOR A PROGRAMMABLE CONTROLLER
BR	PI9102064	18-May-1990	SELECTABLE CONTROL FUNCTION INJECTION MOLDING CONTROLLER
AU	73845/91	27-Mar-1991	APPARATUS FOR CONTROLLING AN ELECTRIC MOTOR
CA	2060419	31-Jan-1992	MULTIPLE ADAPTER RESPONSE DETECTION CIRCUIT
BR	PI9104693	30-Oct-1991	PROGRAMMABLE CONTROLLER PROCESSOR WITH AN INTELLIGENT FUNCTIONAL MODULE INTERFACE
US	938829	29-Sep-1997	TOUCH SENSITIVE SWITCHING SYSTEM AND METHOD FOR CONTROLLING SUCH A SYSTEM
DE	P4313190.5	22-Apr-1993	DATA INTERFACE INITIALIZATION APPARATUS AND METHOD FOR A PROGRAMMABLE CONTROLLER
US	09/219726	22-Dec-1998	METHOD FOR INTERRUPTING AN ELECTRICAL CIRCUIT
EP	96100333.2	11-Jan-1996	CIRCUIT BOARD HAVING A WINDOW ADAPTED TO RECEIVE A SINGLE IN-LINE PACKAGE MODULE
EP	96115348.3	25-Sep-1996	RIGID-FLEX CIRCUIT BOARD HAVING A WINDOW FOR INSULATED MOUNTING AREA
US	09/408669	30-Sep-1999	INDUSTRIAL CONTROLLER AND NETWORK CARD WITH BUFFER NEGOTIATION
EP	94303094.0	28-Apr-1994	DIGITAL COMMUNICATION NETWORK WITH A MODERATOR STATION ELECTION PROCESS
US	09/406369	28-Sep-1999	MODULAR RELAY WITH NETWORK COMMUNICATIONS

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<i>Country</i>	<i>Application No.</i>	<i>Filing Date</i>	<i>Title</i>
CA	2056829	02-Dec-1991	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS
JP	247849/91	26-Sep-1991	OVERLOAD CURRENT PROTECTION APPARATUS
US	09/756684	09-Jan-2001	STACK ASSEMBLY HOUSING
US	09/561025	28-Apr-2000	PROXIMITY SENSOR RESISTANT TO ENVIRONMENTAL EFFECTS
US	09/669822	26-Sep-2000	MODULAR CONVEYOR WITH ADDRESS-BASED NETWORK FOR INTER-CONVEYOR COMMUNICATION
US	09/654755	05-Sep-2000	TRACKING METHOD FOR STORING EVENT DATA USING DATABASE-OBJECTS
DE	P4134299.2	19-Oct-1990	OPTICAL SENSOR PROJECTING AN IMAGE OF THE SENSOR FOR ALIGNMENT PURPOSES
US	09/516974	29-Feb-2000	CSI DRIVE HAVING FEEDFORWARD CONTROL OF INVERTER INPUT VOLTAGE
JP	343591/91	25-Dec-1991	PROGRAMMABLE CONTROLLER PROCESSOR FOR CONCURRENTLY EXECUTING MULTIPLE USER CONTROL PROGRAMS
US	09/163104	29-Sep-1998	CONTROLLER ASSEMBLY HAVING A BASE UNIT WITH A DOCKABLE PROCESSOR UNIT
GB	86112981.5	20-Sep-1986	PROGRAMMABLE CONTROLLER WITH SELF TESTING I/O STRUCTURE
US	09/494005	28-Jan-2000	CNC SYNCHRONIZED LOGIC EXECUTION IN AN OPEN COMPUTER PLATFORM ACROSS A STANDARD BUS
DE	100 47 998.7	26-Sep-2000	SWITCH CONTACT MECHANISM
US	09/256836	23-Feb-1999	HYDRAULIC CONTROLLER USING MULTIPLE REGIME SPECIFIC CONTROLLERS COMBINED WITH FUZZY
US	09/573316	18-May-2000	METHOD AND APPARATUS FOR CALCULATING RMS VALUE
US	09/406506	28-Sep-1999	METHOD AND APPARATUS FOR SUPPLYING DATA AND POWER TO PANEL-SUPPORTED COMPONENTS
US	09/520780	08-Mar-2000	SYSTEM AND METHOD FOR PROVIDING ECC IN MEMORY SYSTEMS
US	09/379205	21-Aug-1999	SYSTEM FOR CONTRAST CONTROL USING LINEARIZED VARIABLE NETWORK OF PARALLEL RESISTIVE TERMS
US	09/164418	30-Sep-1998	STATIONARY CONTACT FOR AN ELECTRICAL CONTACTOR AND METHOD FOR CONDUCTING CURRENT THROUGH SAME
EP	99 109 110.9	07-May-1999	PROCESS FOR MANUFACTURE OF MICRO ELECTROMECHANICAL DEVICES HAVING HIGH ELECTRICAL ISOLATION
US	09/407665	28-Sep-1999	REAL TIME SAMPLING SYSTEM AND METHOD FOR MEASURING AN INTERRUPTED SURFACE
US	08/994517	19-Dec-1997	NETWORKED FILE OPERATIONS FOR COMPUTER NUMERICAL CONTROLS
US	09/407186	27-Sep-1999	JOG CONTROL FOR INDUSTRIAL CONTROL NETWORK

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US	09/336882	18-Jun-1999	BONDING A THERMOPLASTIC ELASTOMER TO A MAGNESIUM BASED METAL
US	09/550037	14-Apr-2000	INPUT/OUTPUT DEVICE HAVING REMOVABLE MODULE
US	09/677036	29-Sep-2000	ADAPTIVE PREDICTIVE SYNCHRONOUS CURRENT FRAME REGULATOR METHOD AND APPARATUS
US	09/672637	28-Sep-2000	MULTIPLE COLOR DEPTH DIGITAL DISPLAY INTERFACE
US	09/729486	04-Dec-2000	DRIVE ROLLER CONTROLLER AND METHOD OF USING SAME
US	09/677103	29-Sep-2000	LOW POWER DISSIPATION TOUCH PLANE INTERFACE CIRCUIT
US	09/675600	29-Sep-2000	METHOD AND APPARATUS FOR REDUCING ARC RETROGRESSION IN A CIRCUIT INTERRUPTER
US	09/820142	28-Mar-2001	THROUGH PANEL WIRING SYSTEM
US	09/699802	30-Oct-2000	SELF-PROGRAMMABLE BATTERY LOAD/BIAS FOR MEMORY EXPANSION MODULE
US	09/675791	29-Sep-2000	MULTIPLE TOUCH PLANE COMPATIBLE INTERFACE CIRCUIT AND METHOD
US		22-May-2001	SYNCHLINK HARDWARE INCLUDING PROCESSOR AND ENCODER INTERFACES
US	09/782438	13-Feb-2001	METHOD AND SYSTEM FOR MEASURING A PARAMETER OF MOTOR OPERATION
US	09/616165	14-Jul-2000	NINE-PHASE TRANSFORMER (SECOND CASE)
US	09/672934	28-Sep-2000	SYSTEM DESIGN, PROPOSAL AND PROGRAMMING METHOD AND APPARATUS
US	09/652197	31-Aug-2000	AUTO-CORRECTING PART MEASURING SYSTEM
US	09/671382	27-Sep-2000	NOISE RESISTANT ELECTRONIC PRESENCE SENSOR
US		22-May-2001	SYNCHLINK COMMUNICATIONS PROTOCOL AND OPTIONS
US		22-May-2001	MULTI-CHASSIS CONFIGURABLE TIME SYNCHRONIZATION
US		11-Apr-2001	TORRIDIAL MODE/DIFFERENTIAL MODE CHOKE
US	09/621718	24-Jul-2000	GLOBAL RESOURCE LOCATOR FOR AUTONOMOUS COOPERATIVE CONTROL SYSTEMS
US	09/654721	05-Sep-2000	SYSTEM FOR MEASURING MATERIAL IN A PRESS
US		20-Apr-2001	WEB BASED FORCING
US		20-Apr-2001	DISTRIBUTION OF MACHINE CONTROL, INPUT/OUTPUT OR DIAGNOSTIC FUNCTIONS USING INTERNET MULTICAST
US	09/832785	11-Apr-2001	DIRECT ACTING LIMIT SWITCH
US	09/672632	28-Sep-2000	RASTER ENGINE WITH BOUNDED VIDEO SIGNATURE ANALYZER
US	09/837043	18-Apr-2001	METHOD AND APPARATUS FOR VIDEO UNDERFLOW DETECTION IN A RASTER ENGINE

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US	09/672636	28-Sep-2000	RASTER ENGINE WITH PROGRAMMABLE HARDWARE BLINKING
US	09/677035	29-Sep-2000	GROUP SHIFTING AND LEVEL SHIFTING ROTATIONAL ARBITER SYSTEM
US	09/594240	15-Jun-2000	SYSTEM AND METHOD FOR SELECTIVELY CONNECTING ONE OF AT LEAST TWO OUTPUTS OF AN ASSOCIATED CIRCUIT TO AN OUTPUT NODE
US	09/796167	28-Feb-2001	METHOD AND APPARATUS FOR SECURING A CONDUIT BOX TO A MOTOR AND MOTOR INCORPORATING SAME
US	09/070861	30-Apr-1998	METHOD AND APPARATUS FOR INTERFACING BUSINESS SYSTEMS WITH BATCH CONTROL SYSTEMS
US	09/672638	28-Sep-2000	MULTIPLE ADAPTING DISPLAY INTERFACE
US	09/675855	29-Sep-2000	PROGRAMMABLE ERROR CHECKING VALUE CIRCUIT AND METHOD
US	09/675236	29-Sep-2000	PROGRAMMABLE NETWORK CONTROL COMPONENT AND SYSTEM OF COMPONENTS
US	09/788928	20-Feb-2001	MICROELECTROMECHANICAL SYSTEM (MEMS) DIGITAL ELECTRICAL ISOLATOR
US	09/549006	14-Apr-2000	MOUNTING SYSTEM FOR MOUNTING MODULES TO A RAIL
US	09/819313	28-Mar-2001	RESTRAINT METHOD AND APPARATUS FOR THREADED FASTENERS
US	29/124977	15-Jun-2000	INDICATOR MODULE FOR POSITIONING PROXIMITY SENSORS
US	09/652236	31-Aug-2000	IN-DIE PART MEASURING SYSTEM
WO	00/10231	14-Apr-2000	INPUT/OUTPUT DEVICE HAVING REMOVABLE MODULE
US	09/843563	26-Apr-2001	METHOD FOR FABRICATING AN ISOLATED MICROELECTROMECHANICAL SYSTEM (MEMS) DEVICE INCORPORATING A WAFER LEVEL CAP
US	09/583702	31-May-2000	SINGLE/THREE PHASE COMPATIBLE OVERLOAD RELAY
US	09/672639	28-Sep-2000	RASTER ENGINE WITH PROGRAMMABLE MATRIX CONTROLLED GRAYSCALE DITHERING
US	09/599271	22-Jun-2000	METHOD FOR PROCESSING DYNAMICALLY ALLOCATED TIMERS IN A REAL TIME OPERATING SYSTEM
US	09/699446	31-Oct-2000	SYSTEM FOR IDENTIFYING VALID CONNECTIONS BETWEEN ELECTRICAL SYSTEM COMPONENTS AND RESPONDING TO INVALID CONNECTIONS
US	09/672933	28-Sep-2000	ELECTRICAL CONTROL SYSTEM CONFIGURATION METHOD AND APPARATUS
US	09/672635	28-Sep-2000	RASTER ENGINE WITH HARDWARE CURSOR
US	09/609556	30-Jun-2000	MODULAR/RE-CONFIGURABLE TEST PLATFORM
US	09/804817	13-Mar-2001	MICROELECTROMECHANICAL SYSTEM (MEMS) ANALOG ELECTRICAL ISOLATOR
US	09/616163	14-Jul-2000	NINE-PHASE TRANSFORMER

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US	09/676127	29-Sep-2000	AUTOMATIC DETECTION OF TOUCH PLANE TYPE
US	09/634362	09-Aug-2000	SYSTEM AND METHOD PROVIDING SYSTEMS SALES ORDER QUALITY ASSURANCE
US	09/616261	14-Jul-2000	OBJECT ORIENTED SCALEABLE TEST EXECUTIVE
US	09/616427	14-Jul-2000	FIBER OPTIC BUS ISOLATOR
US	09/842975	26-Apr-2001	METHOD FOR FABRICATING AN ISOLATED MICROELECTROMECHANICAL SYSTEM (MEMS) DEVICE INCORPORATING A WAFER LEVEL CAP
US	09/843545	26-Apr-2001	METHOD FOR FABRICATING AN ISOLATED MICRO-ELECTROMECHANICAL SYSTEM DEVICE USING AN INTERNAL VOID
US	09/672935	28-Sep-2000	MULTILINGUISTIC INDUSTRIAL CONTROL AND MONITORING SYSTEM
US	09/650614	30-Aug-2000	METHOD AND APPARATUS FOR VOLTAGE REGULATION VIA PSUEDO-RANDOM PWM MODULATION
US	09/675928	29-Sep-2000	LOW OVERHEAD SYNCHRONIZED ACTIVATION OF FUNCTIONAL MODULES
US	09/835746	16-Apr-2001	USER INTERFACE AND SYSTEM FOR CREATING FUNCTION BLOCK DIAGRAMS
US	09/590922	09-Jun-2000	MULTI-ANGLE VIEWABLE INDICATOR APPARATUS
US	09/670925	28-Sep-2000	INTEGRATED CONTROL, MONITORING AND SUPPORT DOCUMENT SYSTEM
US	09/616254	14-Jul-2000	PAGE BACK SYSTEM AND METHOD FOR REMOTE PAGING IN A CONTROL SYSTEM
US	09/672936	28-Sep-2000	CONFIGURABLE OBJECT FOR INDUSTRIAL CONTROL AND MONITORING NETWORKS
US	09/850479	07-May-2001	HARMONIC BLOCKING REACTORS FOR NINE-PHASE CONVERTER SYSTEM
US	29/124978	15-Jun-2000	INDICATOR MODULE FOR POSITIONING PROXIMITY SENSORS
US	09/699392	31-Oct-2000	SYSTEM FOR IDENTIFYING VALID CONNECTIONS BETWEEN ELECTRICAL SYSTEM COMPONENTS AND RESPONDING TO INVALID CONNECTIONS
US	09/655629	05-Sep-2000	PRESS MONITORING AND CONTROL SYSTEM
US	09/675866	29-Sep-2000	AUTOSCALING/AUTOSIZING USER INTERFACE
US	09/675451	29-Sep-2000	REAL TIME NETWORK SYSTEM VIEW METHOD AND APPARATUS
US	09/672931	28-Sep-2000	INTERFACE MODULE FOR PROGRAMMABLE CONTROL AND MONITORING COMPONENTS
US	09/672937	28-Sep-2000	NETWORKED CONTROL SYSTEM WITH REAL TIME MONITORING
US	09/627984	28-Jul-2000	BIDDING PARTNER CACHE FOR AUTONOMOUS COOPERATIVE CONTROL SYSTEM

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US	09/761986	17-Jan-2001	SYSTEM AND METHOD FOR PERIODIC TASK RESUMPTION FOLLOWING REDUNDANT CONTROL SYSTEM SWITCHOVER
WO	00/32890	04-Dec-2000	DRIVE ROLLER CONTROLLER AND METHOD OF USING SAME
US	09/596417	12-Jun-2000	ASSEMBLY FOR FACILITATING MOUNTING AND REMOVAL OF AN ARTICLE

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98AB173	HELICAL SPRING ACTUATED, VARIABLE SPEED ELECTRO MECHANICAL CLUTCH
99AB023	SIGNAL GENERATOR FOR SIGMA-DELTA CURRENT SENSOR
00AB211	A METHOD FOR CORRECTING FOR DEVICE DYNAMICS
00AB112	MULTI-CASTING OF SAFETY MESSAGES
01AB111	BRIDGING AND ROUTING OF SAFETY MESSAGES
99AB050	TIME SYNCHRONIZATION WITH IMPLICIT TIME REFERENCE
00AB048	SYSTEM AND METHOD PROVIDING A VIRTUAL INTERFACE FOR AN INDUSTRIAL CONTROLLER
01AB054	MULTIPLE-VIEWING ANGLE COVER WITH INTEGRAL LIGHT PIPES
01RE086	INDUCTION MOTOR FAULT DETECTION BY SPACE VECTOR ANGULAR FLUCTUATION
01AB082	ELECTRONIC LOCKOUT/TAGOUT SYSTEMS
D97ABD097	SCANPORT CHECK ALGORITHM
98AB150	ISOLATED DC TO DC CONVERTER USING MEMS SWITCHES
00AB177	IMPROVED METHOD FOR FABRICATING AN ISOLATED MICROELECTROMECHANICAL SYSTEM DEVICE
98AB049	METHODOLOGY TO PREDICT EXTRAPOLATION OF THE PROCESS MODEL INFORMATION BEFORE AN ALARM OR ACTION IS NEEDED
00AB181	IMPROVED METHOD FOR CONSTRUCTING AN ISOLATED MICROELECTROMECHANICAL SYSTEM DEVICE USING SURFACE FABRICATION TECHNIQUES
00AB164	MODEL REFERENCE ADAPTIVE CONTROL FOR SYSTEM INERTIA IDENTIFICATION AND VELOCITY LOOP REGULATION
00RE208	THIN FILM SUPERCONDUCTING INDUCTION MOTOR
01AB013	MEMS CURRENT ISOLATION TRANSDUCER WITH STRAIN/STRESS RELIEVED BEAMS
01AB064	METHOD AND SYSTEM FOR WIRING ELECTRICAL DEVICES
01AB071	ADAPTIVE METHOD FOR DUPLICATE IP ADDRESS DETECTION
01AB103	UNIFIED REACTORS FOR HARMONIC MITIGATION
01AB108	STATOR AND ROTOR RESISTORS IDENTIFIER USING HIGH FREQUENCY INJECTION
01AB110	SAFETY NETWORK INTERFACE WITH DUAL MICROPROCESSORS AND A SINGLE NETWORK INTERFACE
01AB112	MULTI-CASTING OF SAFETY MESSAGES
01AB009	SUPERCONDUCTING MOTOR WITH MAGNETICALLY QUENCHED ROTOR
00AB131	METHOD TO COMPENSATE FOR INVENTOR DEAD-TIME USING PWM GENERATOR

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00AB165	COMPATIBLE CONTROL SYSTEM FOR ACTIVE POWER FILTERS
01AB096	METHOD FOR BACKLASH COMPENSATION USING TORQUE SCALING GAIN
01AB128	BACKUP POWER METHOD AND APPARATUS FOR CONTROL AND MONITORING NETWORKS
01AB127	NETWORK BRANCH CONNECTOR AND METHOD AND SYSTEM INCORPORATING SAME
00AB014	SLC I/O ATTACHMENT
00AB101	ALGORITHM TO PROTECT AN AC DRIVE WITHOUT OUTPUT CURRENT SENSORS DURING DC INJECTION BRAKING
01AB055	SYSTEM AND METHOD FOR FUNCTION BLOCK EXECUTION ORDER GENERATION
01AB101	METHOD FOR DETECTION OF CAVITATION IN CENTRIFUGAL PUMPS BASED ON EVALUATION OF PRESSURES
01AB032	PROXIED WEB ACCESS FOR DEVICES ON NON-TCP/IP AUTOMATION NETWORKS
00AB215	METHOD FOR DETECTION OF CAVITATION IN CENTRIFUGAL PUMPS BASED ON PUMP VIBRATION EVALUATION
00AB210	MAGNETO PAPER SENSOR ALGORITHM
01AB026	SELECTIVE CERTIFICATION OF SOFTWARE OF SAFETY RUN-TIME AND SAFETY DEVELOPMENT TOOLS
00AB107	CARRIER FREQUENCY MODULATION TO REDUCE ADVERSE CHARACTERICS OF VSI SWITCHING DYNAMICS
00AB118	TECHNIQUE USING MODIFICATION OF LOOP DIAGRAM AS A TOOL FOR OBJECT-ORIENTED ANALYSIS AND DESIGN OF INDUSTRIAL CONTROL SOFTWARE
99AB052	PROTOCOL FOR TIME MASTER SELECTION
95AB035	METHOD & APPARATUS FOR EXACT EMULATION OF WIRING DIAGRAMS BY WIRELIST REDUCTION
D98ABD005	ZERO OFFSET MEMS CURRENT SENSOR
96AB057	UNIQUE ASPECTS (GEOMETRY) OF A CIRCUIT INTERRUPTER MODULE
00AB121	AUTO-ADJUSTING INITIAL CONNECTION TIMEOUTS TO SURVIVE SWITCHOVER LATENCY IN A REDUNDANT SYSTEM
00AB122	BATCH LANGUAGE PLC
00AB114	VIRTUAL BACKUP ARCHITECTURE FOR SELF ORGANIZING CONTROLLERS
01AB094	POSITION DEPENDENT INERTIA COMPENSATION USING ELECTRONIC CAMMING
99AB180	PERFORMATIVE GENERATOR
99AB183	COMPILER VERIFICATION AND IMPROVED SAFETY FOR PROGRAMMABLE LOGIC
98AB009	METHOD TO REDUCE HARDWARE COMPLEXITY IN FEEDBACK SYSTEMS REQUIRING MULTIPLE HIGH SPEED SAMPLING
00AB035	BUFFER FRAGMENT MAPPER/APPLICATION DATA HANDLER

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99AB138	GATE ARRAY COMPILER
00AB119	MINIMIZING PEAK POWER USAGE USING RESTRICTED START TIME WINDOWS WITH MULTIPLE TIME-SYNCHRONIZED PROGRAMMABLE CONTROLLERS
96AB055	CHEMICAL ENHANCEMENT OF ARC EXTINCTION IN A CIRCUIT INTERRUPTER
00AB001	FEEDFORWARD COMPENSATION OF UPDATE DELAY IN SYNCHRONOUS FRAME CURRENT REGULATORS
99AB051	CROSS NETWORK TIME REFERENCE
99AB048	TIME ERROR GENERATOR FOR SYNCHRONIZABLE CLOCK
00AB124	USER FRIENDLY/ROBUST CONNECTION AND QUALIFICATION/DISQUALIFICATION SUPPORT FOR REDUNDANT SYSTEMS
01AB089	LOW VOLTAGE CATCH AND LOCK OUT FOR BATTERY SAVE
01AB118	POWER SEMICONDUCTOR WITH INTEGRATED HIGH ELECTRICAL ISOLATION MICROELECTROMECHANICAL SYSTEM (MEMS) DIRECT DIE VOLTAGE SENSOR
01AB117	POWER SEMICONDUCTOR WITH INTEGRATED HIGH ELECTRICAL ISOLATION MICROELECTROMECHANICAL SYSTEM (MEMS) DIRECT DIE VOLTAGE AND CURRENT SENSOR
D98ABD050	PREDICT THE NEEDS OF ANALOG SYSTEM TO SCHEDULE SECONDARY DEVICE TO MATCH PERFECTLY
01AB073	DYNAMICALLY-EXTENSIBLE PROXIED WEB ACCESS MODULE
D98ABD069	DC CONTROL OF AN ELECTROMAGNET
01AB123	SURFACE TREATMENT OF INSULATION MATERIALS TO IMPROVE ARC TRACKING IN ELECTRICAL APPLICATIONS
D98ABD052	SYNCHRONIZATION OF SYSTEM STATE
98AB158	SPACE VECTOR SWITCHING MODULATOR FOR THREE-LEVEL NEUTRAL POINT CLAMP TOPOLOGY
01AB043	INTERNET BASED TIME STAMPS FOR DIAGNOSTICS
01AB051	PROGRAM INITIATED DYNAMICALLY GENERATED WEB PAGES
01AB105	TEST PLUG WITH A RETENTION LEVER, SPRING AND REMOVAL BUTTON INCORPORATED INTO THE DESIGN OF THE TEST PLUG HOUSING
D98ABD062	TIME SYNCHRONIZATION WITHIN FIELD DEVICES WITH MULTIVARIABLE CAPACITY CREATE VIRTUAL VARIABLES VIA RELATIONSHIPS AND ELIMINATE PHYSICALLY REDUNDANT OR SUPERFLUOUS DEVICES OR PARAMETERS
98AB130	INTELLIGENT AGENT SYSTEM TO OPTIMIZE PRODUCTION LINE PERFORMANCE
00AB117	MACHINE DIAGNOSTIC AND OPERATOR GUIDANCE
00AB062	NOTCH CONTROL
01AB116	POWER SEMICONDUCTOR WITH INTEGRATED HIGH ELECTRICAL ISOLATION MICROELECTROMECHANICAL SYSTEM (MEMS) DIRECT DIE CURRENT SENSOR
98AB144	NEGOTIATION PROTOCOL

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99AB082	DISTRIBUTED REAL-TIME OPERATING SYSTEM: DEADLOCK DETECTION AND RESOLUTION
D98ABD098	MONITOR AND ANALYZE THE HANDLING AND EXPOSURE OF EQUIPMENT
98AB142	JOB DESCRIPTION LANGUAGE PARSER
D98ABD097	FLOATING RF TAGS (a device for in-situ liquid monitoring diagnostics)
98AB135	SYSTEM FOR LEARNING AND APPLYING FAIL SAFE INFORMATION AROSS A DISTRIBUTED COMPUTING ENVIRONMENT USING AN INTELLIGENT AUTONOMOUS AGENT ARCHITECTURE
D98ABD049	COORDINATED DRIVE FOR WEB BASED MANUFACTURING
D98ABD095	MEMS FOR IN-SITU PROCESS MONITORING AND CONTROL FOR YIELD IMPROVEMENT
00AB093	MOTION COMMAND PROFILE FILTER
00AB027	MULTI HUB DYNAMIC ROUTING ALGORITHM WITH CONSTRAINED PATH BASED ON MODIFIED BACKWARD SEARCH FOR SELF-ORGANIZING AUTOMATION CONTROLLER
98AB140	ITERATIVE METHOD TO SOLVE FOR PROCESS INPUT VARIABLE FROM A PROCESS SPECIFICATION
99AB189	CHAMELEON I/O SYSTEM MECHANISM
D98ABD087	MEMS MIRROR ARRAY FOR OPTICAL DETECTION
98AB128	AGENT-BASED FRAGMENTATION SYSTEM FOR LOW PRIORITY PROCESSES
98AB141	MAINTENANCE OPTIMIZING CONTROL SYSTEM
98AB138	PERFORMATIVE GENERATOR
D98ABD091	COMBINED PUSHBUTTON AND CONTACTOR RELAY
99AB080	PLATFORM-INDEPENDENT CODE MIRRORING IN A MULTI-PROCESSOR CONTROL SYSTEM
D98ABD101	METHODS FOR VIBRATION AND NOISE CANCELLATIONS USING MEMS DEVICES
98AB131	AGENT CONTROLLED BIAS OF CLOSED LOOP CONTROL SYSTEM
01AB047	SHIP PROGRAMS FROM A HARD CONTROL UNIT INTO A SOFT CONTROL UNIT FOR DEBUGGING ON A ALTERATION OF CONTROL CODE ON THE FLY
98AB120	INTELLIGENT AGENT SYSTEM FOR DETERMINING THE LIFE EXPECTANCY OF EQUIPMENT USED IN ACTUAL MANUFACTURING PROCESS
98AB078	SMART POWER
D98ABD051	ALTER RESONANT CHARACTERISTICS OF SYSTEM
01AB034	STAND CELL POWER ASSEMBLY (& SYSTEM)
01AB039	DATA, VOICE, VIDEO SENSOR FOR ALARMS AND INFORMATION DOWNLOAD OVER THE WORLDWIDE WEB
01AB046	DYNAMIC DISTRIBUTED LOAD BALANCING OVER THE WEB USING NEUTRAL LANGUAGE PROGRAMS TO BE SENT OVER WEB FOR PROCESSING
D98ABD016	VOLTAGE CORRECTION FOR CURRENT LIMIT START

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PATENT
REEL: 029180 FRAME: 0301

Case Number	Title
98AB129	INTELLIGENT AGENT SYSTEM FOR OPTIMAL MANAGEMENT OF FAILURES ON THE FACTORY FLOOR
01AB109	SOFTWARE FRAMEWORK FOR HETEROGENEOUS COMPONENT BASED DISTRIBUTED SYSTEM
01AB124	VIDEO NETWORK TERMINAL
D98ABD064	COORDINATE MATERIAL MOVEMENTS WITH ACTUATION ON THE FLY
98AB073	ISOLATED POWER CONVERTER IMPLEMENTED IN MEMS
01AB131	ACTION PIN PATCH-BOARD MATRIX
01AB133	MECHANISM FOR EFFICIENT EXCHANGE OF CONTROL INFORMATION USING XML
01AB107	MICROELECTROMECHANICAL SYSTEM (MEMS) DIRECT DIE CURRENT SENSOR HAVING HIGH ELECTRICAL ISOLATION
01AB135	ARCHIVE AND RESTORE METHOD FOR RUN TIME ON-LINE EDITS TO VOLATILE MEMORY, WITH IMMUNITY TO POWER CYCLING, VIA NON-VOLATILE BUFFERING MECHANISM
D98ABD061	CROSSING MULTIPLE NETWORKS WHILE MAINTAINING SYNCHRONIZATION
00RE207	DYNAMIC NAVIGATIONAL RUNNING CATALOG NUMBER
01AB088	LOW VOLTAGE DETECT AND ALARM FOR NON-PARITY MEMORY DATA INTEGRITY
98AB133	METHOD FOR DYNAMICALLY ALTERING HUMAN MACHINE INTERFACE (HMI) BY MONITORING AND REMEMBERING USAGE PATTERNS
D98ABD059	ASIC'S WITH BUILT IN TIME STAMPS
01AB136	DYNAMICALLY SELF-OPTIMIZING BSE BIAS CONTROL FOR BATTERY CURRENT MINIMIZATION
D98ABD090	A METHOD FOR COMBINING MEMS TECHNOLOGY WITH SENSOR TECHNOLOGY FOR CHEMICAL SENSING DEVICES AND SYSTEMS
01AB137	DATA FACE PLATE
01AB138	DATA PATCH PANEL
01AB033	WEB BROWSER INTERFACE FOR NAVIGATING INTERCONNECTED, HETEROGENEOUS CONTROL NETWORKS
99AB085	DISTRIBUTED REAL TIME OPERATING SYSTEM: DEVICE DRIVER MANAGEMENT
01AB143	METHOD OF FLUX POSITION DETECTION USING HIGH FREQUENCY INJECTION WITH THE PRESENCE OF A RICH HARMONIC SPECTRUM IN A RESPONDING SIGNAL
00AB008	MULTIPLE INTERFACE COMPATIBLE TOUCH SCREEN CONTROLLER
D98ABD013	STRAY MAGNETIC FIELD AMBIENT COMPENSATOR
01AB114	HYBRID RELAY
00AB105	IMPROVED CONTROLLER FOR INDUCTION MOTOR SOFT STARTERS
01AB074	WEB-ACCESSIBLE EMBEDDED PROGRAMMING SOFTWARE
01AB040	INTERACTIVE FAULT HANDLING OVER THE INTERNET

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Case Number	Title
00AB084	INTRALAYER COMPONENT PLACEMENT FOR PRINTED CIRCUIT BOARDS
D98ABD008	METHODS TO REDUCE TORQUE DISTURBANCES AND OFFSETS INDUCED BY INDUCTION MACHINES WITH ROTOR ASYMMETRIES
99AB006	SYNCHRONOUS COMMUNICATION DISTURBANCE COMPENSATION
01AB018	FIBER TO WIRELESS UNIVERSAL COMMUNICATIONS ADAPTER
D98ABD094	COMMUNICATION MICROSENSOR DEVICE
00AB097	REMOVAL OF MECHANICAL RESONANCE FROM CONTROL LOOPS BY NULL-POINT SYNTHESIS
D98ABD048	SYNCHRONIZATION OF SCAN LOOPS
D98ABD054	METHOD TO ELIMINATE SYSTEM AND ACTUATOR LATENCY FOR IMPLEMENTATION OF TIME CRITICAL ACTUATION
D98ABD053	SYNCHRONIZATION OF TASK SCHEDULING
01AB050	USER DEPLOYABLE WEB BROWSER DISPLAY ON A WEB BROWSER MODULE IN A PLC RACK
D98ABD057	COORDINATION OF SOFTWARE UPDATES
99AB073	DISTRIBUTED REAL TIME OPERATING SYSTEM: GUARANTEED MIXED PRIORITY SCHEDULING
01AB049	WEB ENABLED WIRELESS NETWORK INTERFACE
01AB044	WEB BASED BROWSING OF MACHINE TAGS
01AB038	ENCRYPTED PUBLIC KEY ACCESS FOR MAINTENANCE
01AB048	WEARABLE SITUATIONAL DEPENDENT DOWNLOADS
D98ABD070	DUAL WINDING COIL BOBBIN WITH COMMON WINDING START SLOT AND CIRCUIT BOARD MOUNT
D98ABD096	AUTOFOCUS USING LIQUID LENSES
99AB094	ECONOMIZED SCR SELF POWERED GATE DRIVER FOR RECTIFIER APPLICATIONS
01AB052	USE OF INTERNET TO DO CLIENT OR SERVER INITIATED REVISION MANAGEMENT
01AB006	AUTOMATICALLY RECONFIGURABLE MERCURY FUSE
D98ABD089	A METHOD FOR COMBINING MEMS TECHNOLOGY WITH SENSOR TECHNOLOGY FOR MULTIVARIABLE SENSING DEVICES AND SYSTEMS
00AB096	MOTOR TORSIONAL DAMPER
00AB090	ACCELERATION FEEDBACK SENSOR
D98ABD092	MAGNETICALLY HELD START SWITCH
99AB055	USING COPPER HOUSING FOR WELD FIELD IMMUNE PROXIMITY SENSORS AS MEANS TO ELIMINATE THE SLAG BUILDING IN WELDING ENVIRONMENT
D98ABD006	CALCULATION OF THE 3-PHASE ASYNCHRONOUS MOTOR SHAFT SPEED
00AB011	MULTIPLE ADAPTING DISPLAY INTERFACE

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PATENT
REEL: 029180 FRAME: 0303

Case Number	Title
D98ABD001	DEVICENET PHASE II MEDIA
99AB187	DATA FACE PLATE
00AB174	A METHOD FOR DETERMINING THE PLC PROGRAM COMPLEXITY AND OPTIMAL ALLOCATION OF TASKS, PROGRAMS AND MEMORY IN A MULTI-TASKING PLC
99AB063	UNIQUE PACKAGING FOR PROXIMITY SENSOR FOR DETECTING THE POSITION OF ARM IN CLAMP EQUIPMENTS
99AB057	HIGH VOLTAGE FUSE
99AB044	ANGLE CONTROL OF THE MODULATION WAVE TO REDUCE REFLECTED WAVE OVER-VOLTAGE TRANSIENTS
99AB043	LIVING HINGE COVER FOR SERIES 2000 GLOBAL C.C. TRANSFORMER
99AB041	FREQUENCY GENERATOR
D98ABD093	MINIATURE IMAGE PROJECTOR
99AB030	NEMA CONNECTOR/CORD SEAL
99AB013	FAST CYCLE POWER STRUCTURE
98AB175	"HIGHER LEVEL" SOFTWARE ARCHITECTURE FOR ASYNCHRONOUS MOTOR DIAGNOSTICS
00AB006	METHOD OF MOUNTING AND COUNTING INDUSTRIAL CONTROL DEVICES
01AB035	STANDARD CELL DRIVE (& SYSTEM)
01AB120	FIRST USE OF ICONS TO SETUP AND CONFIGURE A VARIABLE SPEED MOTOR CONTROLLER
01AB115	MICROELECTROMECHANICAL SYSTEM (MEMS) DIRECT DIE CURRENT SENSOR COMPENSATION METHOD
01AB045	MODULE INITIATED EVENT CAUSES DATE OF PROGRAM TO BE SENT OVER WEB FOR PROCESSING
01RE063	INSULATED MAGNETIC PARTICULATE FE-AL MATERIAL FOR USE IN COMPOSITE STATOR/ROTOR MANUFACTURE AND METHOD FOR PRODUCING AN INSULATED COATING ON SAME
00AB049	DEVICE FOR PROTECTING COMPONENTS FROM ELECTROSTATIC DISCHARGE (ESD)
D98ABD099	EMBEDDED POSITION BROADCASTERS
01AB099	RELAY SOCKET WITH LEADAGE CURRENT SUPPRESSION
01AB091	IMPROVED PROCESS FOR MANUFACTURE OF MICROELECTROMECHANICAL SYSTEM (MEMS) DEVICES HAVING HIGH ELECTRICAL ISOLATION
01AB085	METHOD FOR CONSISTENT AND PERSISTENT STORAGE OF DATA IN AN INDUSTRIAL CONTROLLER
00AB130	DYNAMIC HYPERMEDIA DESIGN MODEL
01AB069	FLEXARMOR KICKSTAND
01AB017	WIRELESS NETWORK TOOLS

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PATENT
REEL: 029180 FRAME: 0304

Case Number	Title
01AB030	TCP/IP ACCESS FOR NON-TCP/IP DEVICES VIA REMOTE SOCKET INTERFACE
01AB027	ELECTRONIC LOCKOUT/TAGOUT SYSTEMS
01AB016	WIRELESS N+1 REDUNDANCY
D98ABD042	DIGITALLY AUGMENTED "WINDOW" COMPARE CIRCUIT
01AB005	TOUCH SCREEN USING ECHO-LOCATION
01AB003	UNIQUE WAY OF TERMINATING DEVICES USING INSULATION DISPLACEMENT
98AB134	INTELLIGENT AGENT TO OPTIMIZE CONTROL SYSTEM DEVICE CONFIGURATION
00AB199	MOTOR TORQUE CONTROL BY COMBINED SPEED AND CURRENT MINOR LOOP
00AB194	OFFLINE DEBUGGING OF EMBEDDED FIRMWARE IN PROGRAMMABLE LOGIC CONTROLLERS
00SW083	METHOD FOR TIME SYNCHRONIZATION AMONG INDEPENDENT MODELING SYSTEMS AS PART OF PCL LOGICAL VERIFICATION SYSTEM
01AB007	HIGH TEMPERATURE INTEGRATED R-L-C ELEMENT
98AB132	ALARM FILTERING AND SEQUENCING AGENT
00AB047	EXECUTION ORDER SEQUENCE RESOLVER FOR A FUNCTION BLOCK PROGRAM CONTAINING A PLURALITY OF FEEDBACK LOOPS
99AB008	EFFECTIVE INERTIA COMPENSATION
D98ABD055	PROGRAM LOGIC BLOCKS (INPUT CAPTURE AND OUTPUT ON TIME)
01AB068	INTEGRAL BACKLIGHT MOUNT FOR LIQUID CRYSTAL DISPLAY MODULE
01AB001	A MECHANISM FOR RESTORING THE RAC6182 WinCE DESKTOP AND AUTOLOADING APPLICATIONS
00AB200	METHOD FOR DETECTION OF STATOR AND ROTOR FAULTS OF DELTA CONNECTED AC MOTORS WITH IMPROVED SENSITIVITY
98AB176	HIGH PRECISION CALCULATION OF SHAFT SPEED OF 3-PHASE ASYNCHRONOUS INDUCTION MOTOR FOR MOTOR DIAGNOSTICS
D97ABD213	COMMON/DIFFERENTIAL INDUCTOR
98AB064	BUS CHOKE FOR POWER SUPPLY
01AB042	SCHNEIDER PATENT PLUS MOTION, VISION, PROCESS, AND I/O
D98ABD058	SYNCHRONIZATION OF PID AND OTHER CLOSED LOOP FEEDBACK ACROSS PLATFORMS TO PREVENT ALIASING
98AB127	ENSURING MODULE COMPATIBILITY ACROSS SYSTEM COMPONENTS THROUGH EMBEDDED AGENTS
98AB143	INTERACTION PROTOCOL
D98ABD058	USE SYNCHED ACTIVITIES IN SUPER SCALAR TECHNIQUES TO OPTIMIZE CONTROL SYSTEM
98AB159	CURABLE THERMAL INTERFACE GREASE

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PATENT
REEL: 029180 FRAME: 0305

Case Number	Title
00AB127	DETECTION OF BROKEN BARS IN AC MOTORS FROM LINE-TO NEUTRAL VOLTAGES
98AB139	CONVERGENCE PROTOCOL
00AB149	MINIMUM MOVE TOUCH SCREEN SCANNING TO REDUCE PROCESSOR OVERHEAD
01AB119	HIGH TEMPERATURE INTEGRATED R-L-C PASSIVE ELEMENT
00AB120	APPLICATION RELAY INTERFACE (ARI) CARTRIDGE FOR SAFETY SYSTEMS
00AB094	FLAT CABLE FOR VOLTAGE SPIKE REDUCTION
D98ABD100	A MEMS SYSTEM FOR MEASURING ROTATING MACHINE PARAMETERS
98AB126	INTELLIGENT AGENT SYSTEM FOR DETERMINING THE LIFE EXPECTANCY OF EQUIPMENT THAT IS USED IN ACTUAL MANUFACTURING PROCESS
99AB188	DATA PATCH PANEL
01AB031	ENCODING TASK DEPENDENCIES IN REMOTE TASK INVOCATIONS TO CREATE A SELF DISTRIBUTING SYSTEM
00AB009	MULTIPLE COLOR DEPTH DIGITAL DISPLAY INTERFACE
01AB106	MICROELCTROMECHANICAL SYSTEM (MEMS) DIRECT DIE VOLTAGE SENSOR HAVING HIGH ELECTRICAL ISOLATION
98ABD063	1) USE OF SYNCHRONIZATION IN GEOGRAPHICALLY SEPARATE SYSTEMS (POWER LINE, PIPELINE, AND PNEUMATIC) 2) RECONFIGURE UTILITY PROTECTION CONCURRENT WITH TRANSMISSION TOPOLOGY CHANGES
00AB126	DETECTION OF STATOR FAULTS IN AC MOTORS FROM LINE-TO-NEUTRAL VOLTAGES INSENSITIVE TO LINE VOLTAGE UNBALANCE
98AB177	STATOR FAULT DIAGNOSIS FROM MOTOR NEUTRAL SHIFT
98AB145	INTELLIGENT AGENT SYSTEM FOR DETERMINING THE LIFE EXPECTANCY OF EQUIPMENT THAT IS USED IN MANUFACTURING PROCESS
00AB091	TRUE ACCELERATION CONTROL
00AB125	SYNCHRONOUS EVALUATION OF AC MOTOR VIBRATIONS USING LINE-TO-NEUTRAL
98AB136	INTELLIGENT TROUBLESHOOTING AGENT TO TRACE AND DIAGNOSE DISTRIBUTED CONTROL SYSTEMS
01AB090	USER INITIATED BATTERY DISCONNECT FOR BATTERY SAVE AFTER MEMORY ARCHIVAL
98AB174	LOGIC ENABLED OUTPUTS
D98ABD047	PUT SYSTEM IN SELF-LEARNING THROUGH SYNCHRONIZATION MONITORING SO IT CAN DIAGNOSE MACHINES, APPLICATIONS, SYSTEMS
00AB085	ACCESSING INFORMATION FROM A PROGRAMMABLE CONTROLLER USING SQL
D98ABD088	A DEVICE OR METHOD FOR COMBINING MEMS TECHNOLOGY WITH SENSOR TECHNOLOGY TO PRODUCE POSITIONAL INFORMATION AND CONTROL
01AB144	MAGNETICALLY ENHANCED STRUCTURE FOR IMPROVED ARC MOBILITY
01AB019	WIRELESS BACKPLANE

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PATENT
REEL: 029180 FRAME: 0306

Case Number	Title
00AB173	METHOD FOR MANAGING MEMORY IN A REAL TIME INDUSTRIAL CONTROLLER
99AB007	POSITION UPDATE DELAY COMPENSATION FOR ELECTRONIC GEARING AND CAMMING
00AB095	COMPONENT DESIGN FOR PANEL GROUND PLANE SYSTEM
D98ABD060	PUT SYSTEM IN SELF LEARNING THROUGH SYNC MONITORING SO IT CAN DIAGNOSE MACHINES, APPLICATIONS, AND SYSTEMS

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PATENT

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REEL: 029180 FRAME: 0307

**Trademark Exclusive License
Agreement between RAI and RATI**

TRADEMARK EXCLUSIVE LICENSE AGREEMENT

between

ROCKWELL INTERNATIONAL CORPORATION,

and

ALLEN-BRADLEY COMPANY, LLC

and

ROCKWELL AUTOMATION TECHNOLOGIES, INC.

Agreement No. NEW #2C

June 29, 2001

CONFIDENTIAL

TRADEMARK EXCLUSIVE LICENSE AGREEMENT

This Trademark Exclusive License Agreement ("this Agreement") is made as of June 29, 2001 ("Effective Date"), by and between ROCKWELL INTERNATIONAL CORPORATION, a corporation organized and existing under the laws of Delaware and having its principle place of business in the State of Wisconsin ("RIC"), ALLEN-BRADLEY COMPANY, LLC, a limited liability company organized and existing under the laws of the State of Delaware and having its principal place of business in the State of Wisconsin ("A-B"), and ROCKWELL AUTOMATION TECHNOLOGIES, INC., a corporation organized and existing under the laws of the State of Ohio and having its principal place of business in the State of Ohio ("RAT").

Whereas, A-B owns intellectual assets and owns or has the right to license certain trademarks;

Whereas, RIC is the owner of certain trademarks;

Whereas, RAT desires to acquire a royalty-free exclusive license to certain trademarks from RIC and A-B; and

Whereas, RIC and A-B are willing to authorize and grant such a royalty-free exclusive license to RAT in exchange for the economic benefit to be derived on behalf of A-B from centralized management of such trademarks, and for other good and valuable consideration.

Now, therefore, in consideration of the foregoing and the mutual promises hereinafter set forth, the parties agree as follows:

1. DEFINITIONS

As used in this Agreement, the following terms have the meanings indicated:

1.1 General. The terms set forth in quotation marks above shall have the meanings ascribed to them above. RIC, A-B and RAT may be referred to herein either individually as a "Party" or collectively as "Parties" to this Agreement, as the context may require.

1.2 "Term" shall have the meaning set forth in Section 4.1 of this Agreement.

1.3 "Trademarks" shall mean all registered and unregistered trademarks, service marks, trade names, including corporate names and logos, trade dress, and common law trademarks, worldwide, and all trademark and service mark registrations and applications, and extensions and renewals therefor, and the right to apply for any of the foregoing.

1.4 "Licensed Trademarks" shall mean those United States Trademarks owned by RIC or A-B on the Effective Date or acquired thereafter in the ordinary course of RIC's or A-B's business.

1.5 "proper" shall mean in compliance with prevailing legal standards, as such standards may change during the Term of this Agreement, for the purpose of safeguarding the

value and enforceability of the Licensed Trademarks.

1.6 "Field of Use" shall mean the business of RIC and its subsidiaries as it has been conducted by RIC and its subsidiaries prior to the Effective Date and as that business naturally expands in the ordinary course of the affairs of RIC and its subsidiaries during the Term of this Agreement.

2. GRANT OF LICENSE

2.1 Grant. RIC and A-B grant to RAT the exclusive royalty-free right and license, including the right to sublicense, under the Licensed Trademarks for the use thereof in connection with the design, development, manufacture, packaging, marketing, distribution, and sale of goods and services in the Field of Use.

2.2 Cooperation. The Parties agree to execute any additional documents and take any further actions as may be necessary to effectuate the purposes of this Agreement.

3. TRADEMARK QUALITY CONTROL

3.1 Notice. RAT shall require its sublicensees to affix proper trademark notices to any product bearing any Licensed Trademark and proper service mark notices to any materials associated with the services marketed under any Licensed Trademark.

3.2 Quality. RAT shall require its sublicensees to exercise proper quality control over use of the Licensed Trademarks and the goods and services marketed under the Licensed Trademarks.

3.3 Compliance. RAT shall require its sublicensees to cooperate with A-B's review and comply with RIC's and A-B's instructions regarding the sublicensees' exercise of quality control in connection with the use of the Licensed Trademarks.

4. MISCELLANEOUS

4.1 Term. The Term of this Agreement shall commence on the Effective Date and shall remain in force until terminated by mutual agreement of the Parties. This Agreement shall automatically terminate in the event the Parties are no longer under common control.

4.2 Independent Contractors. The Parties are and shall be independent contractors to one another, and nothing herein shall be deemed to cause this Agreement to create an agency, partnership, or joint venture between the Parties. No Party shall have the power to act on behalf of or bind the other Party without their prior written consent.

4.3 No Waiver. The failure of one Party to insist, in any one or more instances, upon performance of any of the terms or conditions of this Agreement by another Party shall not be construed as a waiver or relinquishment of any rights granted hereunder or of the further performance of any such term, covenant, or condition.

4.4 Severability. The Parties agree that if any part, term, or provision of this Agreement shall be found illegal or in conflict with any valid controlling law, the validity of the

remaining provisions shall not be affected by such finding.

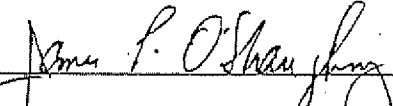
4.5 Assignment. None of the Parties may assign this Agreement, or any interest herein or any obligation or right hereunder, without the prior written consent of the other Parties. Any prohibited assignment shall be null and void. This Agreement shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and permitted assigns.

4.6 Governing Law. This Agreement shall be governed and construed in all respects in accordance with the laws of the State of Wisconsin as they apply to a contract entered into and performed in that State, except that certain of the Licensed Trademarks are governed by relevant federal or state law.


4.7 Consent to Jurisdiction. Each of RIC, A-B and RAT irrevocably submits to the exclusive jurisdiction of state courts of (i) the state of Wisconsin, Milwaukee County and (ii) the United States District Court for the Eastern District of Wisconsin for the purposes of any suit, action or other proceeding arising out of this Agreement or any transaction contemplated hereby (and agrees not to commence any action, suit or proceeding related hereto except in such courts). Each of RIC, A-B and RAT irrevocably and unconditionally waives any objection to the laying of venue of any action, suit or proceeding arising out of this Agreement or the transactions contemplated hereby in (i) the state courts of the State of Wisconsin, Milwaukee County or (ii) the United States District Court for the Eastern District of Wisconsin, and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

In Witness Whereof, the Parties have caused this Agreement to be executed by their duly authorized representatives, effective as of the date and year first written above.


ALLEN-BRADLEY COMPANY, LLC

By: 
(Signature)
James P. O'Shaughnessy
(Printed Name)
Assistant Secretary
(Title)
June , 2001
(Date)

ROCKWELL INTERNATIONAL CORPORATION

By: 
(Signature)
William J. Calise, Jr.
(Printed Name)
Senior Vice President, General Counsel & Secretary
(Title)
June , 2001
(Date)

ROCKWELL AUTOMATION TECHNOLOGIES, INC.

By: 
(Signature)
Karen A. Balistreri
(Printed Name)
Vice President and Assistant Secretary
(Title)
June , 2001
(Date)