PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QUANTUM ENGINEERING, INC.	01/01/2010

RECEIVING PARTY DATA

Name:	INVENSYS RAIL CORPORATION
Street Address:	2400 Nelson Miller Parkway
City:	Louisville
State/Country:	KENTUCKY
Postal Code:	40223

PROPERTY NUMBERS Total: 39

Property Type	Number
Patent Number:	5173681
Patent Number:	6112142
Patent Number:	6701228
Patent Number:	6609049
Patent Number:	6865454
Patent Number:	6845953
Patent Number:	6996461
Patent Number:	6957131
Patent Number:	6863246
Patent Number:	6853888
Patent Number:	6915191
Patent Number:	7283897
Patent Number:	7096096
Patent Number:	6824110
Patent Number:	6903658
	PATENT

REEL: 024128 FRAME: 0423

Patent Number:	6970774
Patent Number:	7142982
Patent Number:	6978195
Patent Number:	7036774
Patent Number:	7092800
Patent Number:	7024289
Patent Number:	7079926
Patent Number:	7139646
Patent Number:	7236860
Patent Number:	7092801
Patent Number:	7467032
Patent Number:	7200471
Patent Number:	7593795
Application Number:	10960970
Application Number:	11339801
Application Number:	11555083
Application Number:	11835050
Application Number:	11839580
Application Number:	11846156
Application Number:	11929605
Application Number:	12178878
Application Number:	12334223
Application Number:	12391442
Application Number:	12495378

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	INVENSYS RAIL - 016024-97
NAME OF SUBMITTER:	James M. Heintz
	PATENT

REEL: 024128 FRAME: 0424

Total Attachments: 10

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Assignment

WHEREAS, QUANTUM ENGINEERING, INC. (the "ASSIGNOR"), having a place of business at 7775 Bay Meadows Way, Suite 350, Jacksonville, FL 32256, is the owner of the entire right, title and interest in and to the U.S. and foreign patents and patent applications listed on Schedule A attached hereto (collectively, the "Patents") and the inventions claimed therein (the "Inventions"); and

WHEREAS, INVENSYS RAIL CORPORATION (the "ASSIGNEE"), having a place of business at 2400 Nelson Miller Parkway, Louisville, KY 40223, is desirous of acquiring the full and exclusive right in and to said Inventions and all documents and things relating to the conception, reduction to practice and/or practice of the Inventions (the "Related Documents") and the entire right, title and interest in and to the Patents and any Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNOR, by these presents, does sell, assign and transfer unto said ASSIGNEE the full and exclusive right in and to the Invention and Related Documents in the United States and its territorial possessions and in all foreign countries, and the entire right, title and interest in and to the Patents and any and all Letters Patent which may be granted therefor in the United States and its territorial possession and in any and all foreign countries, and any and all divisions, continuations, continuations-in-part, substitutions, renewals, re-examinations, extensions and reissues thereof, including but not limited to all rights pursuant to 35 U.S.C. §154 and the right to sue for past infringement of the Patents.

ASSIGNOR hereby authorizes and requests the Patent Office Officials in the United States and its territorial possessions and in any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of the entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE and said ASSIGNEE's successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

QUANTUM ENGINEERING, INC.
1. Taylor
Name: Kim Touloc Title: Senior Legal Cornsel
INVENSYS RAIL CORPORATION Taylor
Name: Kim thy lon Title Senior Legal Counsel

SCHEDULE A

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	QUANTUM US PATENTS AND APPLICATIONS	TENTS AND APF	LICATIONS				
Reference #	Title	Serial #	Filed Date	Patent #	Issue Date	Country	Status
3805/049 SD	SPEED SENSITIVE VISUAL WARNING SYSTEM FOR LOCOMOTIVES	07/584,357	9/18/1990	5,173,681	12/22/1992	Sn	ISSUED
DC 3805-039 US	POSITIVE SIGNAL COMPARATOR AND METHOD	09/105,583	6/26/1998	6,112,142	8/29/2000	SU	ISSUED
DC 3805-002 US	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	10/157,874	5/31/2002	6,701,228	3/2/2004	US	ISSUED
DC 3805-004 US	METHOD AND SYSTEM FOR AUTOMATICALLY ACTIVATING A WARNING DEVICE ON A TRAIN	10/184,929	7/1/2002	6,609,049	8/19/2003	Sn	ISSUED
DC 3805-003 US	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	10/186,426	7/2/2002	6,865,454	3/8/2005	SN	ISSUED
DC 3805-007 US	METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY	10/267,962	10/10/2002	6,845,953	1/25/2005	Sn	ISSUED
DC 3805-001 US	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN DOES NOT PASS AN IMPROPERLY CONFIGURED DEVICE	10/267,959	10/10/2002	6,996,461	2/7/2006	SN	ISSUED
DC 3805-009 US	POSITIVE SIGNAL COMPARATOR AND METHOD	10/300,852	11/21/2002	6,957,131	10/18/2005	Sn	ISSUED
DC 3805-008 US	METHOD AND SYSTEM FOR AUTOMATED FAULT REPORTING	10/331,768	12/31/2002	6,863,246	3/8/2005	SO	ISSUED
DC 3805-010 US	LIFTING RESTRICTIVE SIGNALING IN A BLOCK	10/392,850	3/21/2003	6,853,888	2/8/2005	SU	ISSUED
DC 3805-006 US	METHOD AND SYSTEM FOR DETECTING WHEN AN END OF TRAIN HAS PASSED A POINT	10/440,129	5/19/2003	6,915,191	7/5/2005	Sn	ISSUED
DC 3805-016 CIP	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	10/609,377	7/1/2003	7,283,897	10/16/2007	SN	ISSUED
DC 3805-021 US	METHOD AND SYSTEM FOR AUTOMATICALLY LOCATING END OF TRAIN DEVICES	10/611,279	7/2/2003	7,096,096	8/22/2006	SN	ISSUED
DC 3805-023 CONT	METHOD AND SYSTEM FOR AUTOMATICALLY ACTIVATING A WARNING DEVICE ON A TRAIN	10/619,425	7/16/2003	6,824,110	11/30/2004	Sn	ISSUED
DC 3805-018 US	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN OPERATOR REMAINS ALERT DURING OPERATION OF THE TRAIN	10/671,625	9/29/2003	6,903,658	6/7/2005	SN	ISSUED
DC 3805-025 CIP	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	10/721,227	11/26/2003	6,970,774	11/29/2005	US	ISSUED

PENDING	SU			8/7/2007	11/835,050	METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL VITAL	DC 3805-029 US
ISSUED	S	9/22/2009	7,593,795	11/15/2006	11/560,277	METHÓD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	DC 3805-016 CIP DIV2
PUBLISHED	SU			10/31/2006	11/555,083	METHOD AND APPARATUS FOR SOUNDING HORN ON A TRAIN	DC 3805-041 US
ISSUED	SU	4/3/2007	7,200,471	7/11/2006	11/483,590	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 2 CONT
ISSUED	SU	12/16/2008	7,467,032	4/28/2006	11/380,804	METHOD AND SYSTEM FOR AUTOMATICALLY LOCATING END OF TRAIN DEVICES	DC 3805-021 CONT
ISSUED	US	8/15/2006	7,092,801	3/14/2006	11/374,096	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 5
PUBLISHED	SU			1/26/2006	11/339,801	METHOD AND SYSTEM FOR LOCATING END OF TRAIN UNITS	DC 3805-036 US
ISSUED	S	6/26/2007	7,236,860	11/18/2005	11/281,559	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN DOES NOT PASS AN IMPROPERLY CONFIGURED DEVICE	DC 3805-001 CONT
ISSUED	SU	11/21/2006	7,139,646	10/27/2005	11/259,082	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 4
ISSUED	Sn	7/18/2006	7,079,926	8/23/2005	11/208,523	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 2
ISSUED	SU	4/4/2006	7,024,289	8/23/2005	11/208,524	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 3
ISSUED	SU	8/15/2006	7,092,800	1/11/2005	11/032,053	LIFTING RESTRICTIVE SIGNALING IN A BLOCK	DC 3805-032 CONT
ISSUED	SU	5/2/2006	7,036,774	10/14/2004	10/963,606	METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY	DC 3805-031 CONT
ISSUED	SU	12/20/2005	6,978,195	10/14/2004	10/963,598	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-028 DIV 1
PUBLISHED	SU			10/12/2004	10/960,970	FAILSAFE ELECTRONIC BRAKING SYSTEM FOR TRAINS	DC 3805-027 US
ISSUED	S	11/28/2006	7,142,982	9/13/2004	10/938,820	SYSTEM AND METHOD FOR DETERMINING RELATIVE DIFFERENTIAL POSITIONING SYSTEM MEASUREMENT SOLUTIONS	DC 3805-005 US
Status	Country	Issue Date	Patent #	Filed Date	Serial #	Title	Reference #
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	QUANTUM US PATENTS AND APPLICATIONS	TENTS AND APP	LICATIONS		-		
Reference #	Title	Serial#	Filed Date	Patent #	Issue Date	Country	Status
DC 3805-038 US	TRAIN CREW MANAGEMENT AND SECURITY SYSTEM	11/839,580	8/16/2007			SU	PUBLISHED
DC 3805-043 US	COGNITIVE ALERTER	11/846,156	8/28/2007			S	PUBLISHED
DC 3805-046 US	DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS	11/929,605	10/30/2007			S	PUBLISHED
DC 3805-048 US	FUEL EFFICIENCY IMPROVEMENT FOR LOCOMOTIVE CONSISTS	12/178,878	7/24/2008			SU	PUBLISHED
DC 3805-021 CONT 2	METHOD AND SYSTEM FOR AUTOMATICALLY LOCATING END OF TRAIN DEVICES	12/334,223	12/12/2008			SU	PUBLISHED
DC 3805-050 US	METHOD AND SYSTEM FOR END OF TRAIN FORCE REPORTING	12/391,442	2/24/2009			S	PENDING
DC 3805-034 US	VITAL SPEED PROFILE TO CONTROL A TRAIN MOVING ALONG A TRACK	12/495,378	6/30/2009			S	PENDING

PENDING	BR			7/1/2004	Pi 0412083-3	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	DC 3805-016 CIP BR
PUBLISHED	BR			3/22/2004	PI 0408527-2	LIFTING RESTRICTIVE SIGNALING IN A BLOCK	DC 3805-010 BR
PENDING	BR			12/1/2003	P103186261	IMPROVED POSITIVE SIGNAL COMPARATOR AND METHOD	DC 3805-009 BR
PUBLISHED	BR			10/10/2003	PI 0315080-1	METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY	DC 3805-007 BR
PUBLISHED	BR			5/19/2004	PI 0410475-7	METHOD AND SYSTEM FOR DETECTING WHEN AN END OF TRAIN HAS PASSED A POINT	DC 3805-006 BR
PENDING	BR			9/12/2005	PI 0504592-4	SYSTEM AND METHOD FOR DETERMINING RELATIVE DIFFERENTIAL POSITIONING SYSTEM MEASUREMENT SOLUTIONS	DC 3805-005 BR
PENDING	BR			7/2/2003	PI 0312425-8	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 BR
PUBLISHED	BR			10/10/2003	PI 0315156-5	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN DOES NOT PASS AN IMPROPERLY CONFIGURED DEVICE	DC 3805-001 BR
ISSUED	Ą	5/29/2008	2003300206	12/31/2003	2003300206	METHOD AND SYSTEM FOR AUTOMATED FAULT REPORTING	DC 3805-008 AU
ISSUED	Ą	3/6/2008	2003298780	12/1/2003	2003298780	IMPROVED POSITIVE SIGNAL COMPARATOR AND METHOD	DC 3805-009 AU
ISSUED	Ą	10/9/2008	2004296016	11/23/2004	2004296016	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	DC 3805-025 CIP AU
ISSUED	AU	1/15/2009	2004278370	9/29/2004	2004278370	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN OPERATOR REMAINS ALERT DURING OPERATION OF THE TRAIN	DC 3805-018 AU
PROPOSED	Ą					DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS	DC 3805-046 AU
PENDING	٤			7/25/2008	NOT YET	METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL VITAL	DC 3805-029 AU
PENDING	ک			9/7/2005	2005329078	SYSTEM AND METHOD FOR DETERMINING RELATIVE DIFFERENTIAL POSITIONING SYSTEM MEASUREMENT SOLUTIONS	DC 3805-005 AU
Status	Country	Issue Date	Patent #	Filed Date	Serial #	Title	Reference #
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PENDING	CA			12/31/2003	2,511,821	METHOD AND SYSTEM FOR AUTOMATED FAULT REPORTING	DC 3805-008 CA
PENDING	Ç			10/10/2003	2,498,927	METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY	DC 3805-007 CA
PENDING	ξ			5/19/2004	2,526,224	METHOD AND SYSTEM FOR DETECTING WHEN AN END OF TRAIN HAS PASSED A POINT	DC 3805-006 CA
PENDING	CA			9/6/2005	2,518,192	SYSTEM AND METHOD FOR DETERMINING RELATIVE DIFFERENTIAL POSITIONING SYSTEM MEASUREMENT SOLUTIONS	DC 3805-005 CA
PENDING	CA			7/2/2003	2,660,868	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 CA DIV 4
PENDING	CA			7/2/2003	2,660,867	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 CA DIV 3
PENDING	CA		·	7/2/2003	2,660,869	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 CA DIV 2
PENDING	CA			7/2/2003	2,660,865	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 CA DIV 1
PENDING	CA			7/2/2003	2,490,801	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 CA
PENDING	CA			10/10/2003	2,501,263	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN DOES NOT PASS AN IMPROPERLY CONFIGURED DEVICE	DC 3805-001 CA
PROPOSED	BR					DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS	DC 3805-046 BR
PUBLISHED	BR			10/11/2005	PI 0515964-4	FAILSAFE ELECTRONIC BRAKING SYSTEM FOR TRAINS	DC 3805-027 BR
PUBLISHED	界			11/23/2004	PI 0416848-8	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	DC 3805-025 CIP BR
PENDING				9/29/2004	PI 0414837-1	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN OPERATOR REMAINS ALERT DURING OPERATION OF THE TRAIN	DC 3805-018 BR
Status	Country	Issue Date	Patent #	Filed Date	Serial#	Title	Reference #
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Reference # Trale	ISSUED	MX	3/7/2008	255141	10/10/2003	PA/a/2005/003845	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN DOES NOT PASS AN IMPROPERLY CONFIGURED DEVICE	DC 3805-001 MX
Title	ISSUED	MX	3/19/2008	255524	9/13/2005	PA/a/2005/009794	SYSTEM AND METHOD FOR DETERMINING RELATIVE DIFFERENTIAL POSITIONING SYSTEM MEASUREMENT SOLUTIONS	DC 3805-005 MX
Title	ISSUED	MX	2/13/2009	264554	11/23/2004	PA/a/2006/006015	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	DC 3805-025 CIP MX
Title	ISSUED	MX	12/7/2007	252301	12/31/2003	PA/a/2005/007035	METHOD AND SYSTEM FOR AUTOMATED FAULT REPORTING	DC 3805-008 MX
TITLE TITLE SOLITION FOREIGN PATENTS Solition Filed Date Patent # Date Country Solition Filed Date Filed Date Patent # Date Country Solition Filed Date Filed Date Patent # Date Country Solition TRAIN CONTROLLING A TRAIN OR TRAINS TIZZO03 THAIN CONTROLLING A TRAIN OR TRAINS TIZZO03 TRAIN CONTROLLING A TRAIN OR TRAINS TIZZO03 TIZZO03 TRAIN OR TRAIN OR TRAINS TIZZO03 TIZ	ISSUED	MX	10/8/2007	250052	5/19/2004	PA/a/2005/012374	METHOD AND SYSTEM FOR DETECTING WHEN AN END OF TRAIN HAS PASSED A POINT	DC 3805-006 MX
eience # Title Serial # Filed Date Filed Date Lounty Lounty 3805-003 TRAIN CONTROLLING A TRAIN OR TRAINS MX/a/2008/002422 7/2/2003 MX MX 3805-003 TRAIN CONTROLLING A TRAIN OR TRAINS MX/a/2008/002423 7/2/2003 MX MX 3805-027 FAILSAFE ELECTRONIC BRAKING SYSTEM FOR TRAINS MX/a/2008/002433 1/0/11/2005 MX MX 3805-027 FAILSAFE ELECTRONIC BRAKING SYSTEM FOR MAKING A GPS SIGNAL TRAINS MX/a/2009/004313 1/0/11/2005 MX MX 3805-028 METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL MX/a/2010/001453 MX/a/2008/004315 7/25/2008 MX MX 3805-041 METHOD AND APPARATUS FOR SOUNDING HORN ON MX/a/2009/004589 9/14/2007 MX MX 3805-043 COGNITIVE ALERITER N/A 7/25/2008 MX MX 3805-043 COGNITIVE ALERITER N/A 7/25/2008 MX MX 3805-045 BUSPLAY OF NON-LINKED EOT UNITS HAVING AN N/A 7/25/2008 MX MX 3805-040 BUSPLAY OF NON-LINK	ISSUED	MX	10/1/2008	260946	12/1/2003	PA/a/2006/006053	IMPROVED POSITIVE SIGNAL COMPARATOR AND METHOD	DC 3805-009 MX
erence # Title Serial # Filed Date Patent # Issue Date Country 3805-003 TRAIN CONTROL SYSTEM AND METHOD OF DIV 4 MX/a/2008/002422 7/2/2003 7/2/2003 MX 3805-003 TRAIN CONTROLLING A TRAIN OR TRAINS DIV 5 MX/a/2008/002423 7/2/2003 7/2/2003 MX 3805-023 TRAINS CONTROLLING A TRAIN OR TRAINS DIV 5 MX/a/2008/002423 10/11/2005 MX MX 3805-023 FAILSAFE ELECTRONIC BRAKING SYSTEM FOR MAKING A GPS SIGNAL VITAL MX/a/2007/004313 10/11/2005 MX MX 3805-028 METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL VITAL MX/a/2007/004313 7/25/2008 MX MX 3805-041 METHOD AND APPARATUS FOR SOUNDING HORN ON ANX/a/2009/004589 MX/a/2008/013685 9/14/2007 MX MX 3805-043 COGNITIVE ALERTER N/A MX MX/a/2009/004589 9/14/2007 MX MX 3805-043 DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS N/A MX/a/2008/013685 10/24/2008 MX MX 3805-040 EMERGENCY STATUS MX <td>ISSUED</td> <td>MX</td> <td>1/7/2009</td> <td>263519</td> <td>10/10/2003</td> <td>PA/a/2005/003791</td> <td>METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY</td> <td>DC 3805-007 MX</td>	ISSUED	MX	1/7/2009	263519	10/10/2003	PA/a/2005/003791	METHOD AND SYSTEM FOR CHECKING TRACK INTEGRITY	DC 3805-007 MX
Title Serince # Title Serial # Ser	ISSUED	MX	1/25/2008	253815	3/22/2004	Pa/A/2005/010101	LIFTING RESTRICTIVE SIGNALING IN A BLOCK	DC 3805-010 MX
Title	PENDING	MX			10/24/2008	MX/a/2008/013685	DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS	DC 3805-046 MX
Title	PENDING	MX			7/25/2008	N/A	COGNITIVE ALERTER	DC 3805-043 MX
Title	PUBLISHED	MX			9/14/2007	MX/a/2009/004589	METHOD AND APPARATUS FOR SOUNDING HORN ON A TRAIN	DC 3805-041 MX
Title Title Serial # Filed Date Patent # Date Country	PENDING	MX			7/25/2008	MX/a/2010/001801	TRAIN CREW MANAGEMENT AND SECURITY SYSTEM	DC 3805-038 MX
erence # Title STRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS TRAIN CONTROLLING A TRAIN OR TRAINS MX/a/2008/002423 7/2/2003 7/2/2003 MX/a/2008/002423 7/2/2003 MX/a/2008/002423 MX/a/2008/002423 MX/a/2008/004313 MX/a/2008/004313 MX/a/2008/004313 MX	PENDING	MX			7/25/2008	MX/a/2010/001453	METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL VITAL	DC 3805-029 MX
QUANTUM FOREIGN PATENTS Title Serial # Filed Date Patent # Date Country SCONTROLLING A TRAIN OR TRAINS TRAIN CONTROL SYSTEM AND METHOD OF MX/a/2008/002422 7/2/2003 MX CONTROLLING A TRAIN OR TRAINS MX/a/2008/002423 7/2/2003 MX MX MX	PUBLISHED	MX			10/11/2005	MX/a/2007/004313	FAILSAFE ELECTRONIC BRAKING SYSTEM FOR TRAINS	DC 3805-027 MX
# Title System AND METHOD OF MX/a/2008/002422 7/2/2003 CONTROLLING A TRAIN OR TRAINS SQUANTUM FOREIGN PATENTS Ssue State State Patent # Date Country	PENDING	MX			7/2/2003	MX/a/2008/002423	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 MX DIV 5
QUANTUM FOREIGN PATENTS Issue Country C	PENDING	M _X			7/2/2003	MX/a/2008/002422	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	DC 3805-003 MX DIV 4
QUANTUM FOREIGN PATENTS	Status	Country	Issue Date	Patent #	Filed Date	Serial#	Title	Reference #
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Reference #	Title	Serial#	Filed Date	Patent #	Issue Date	Country	Status
DC 3805-003 MX	TRAIN CONTROL SYSTEM AND METHOD OF CONTROLLING A TRAIN OR TRAINS	PA/a/2005/000100	7/2/2003	256861	5/6/2008	MX	ISSUED
DC 3805-018 MX	METHOD AND SYSTEM FOR ENSURING THAT A TRAIN OPERATOR REMAINS ALERT DURING OPERATION OF THE TRAIN	PA/a/2006/003328	9/29/2004	259586	8/13/2008	MX	ISSUED
DC 3805-016 CIP MX	METHOD AND SYSTEM FOR COMPENSATING FOR WHEEL WEAR ON A TRAIN	PA/a/2005/014041	7/1/2004	260779	9/24/2008	MX	ISSUED
DC 3805-029 PCT	METHODS AND SYSTEMS FOR MAKING A GPS SIGNAL VITAL	PCT/US2008/071125	7/25/2008			WIPO	PUBLISHED
DC 3805-038 PCT	TRAIN CREW MANAGEMENT AND SECURITY SYSTEM	PCT/US2008/071137	7/25/2008			WIPO	PUBLISHED
DC 3805-043 PCT	COGNITIVE ALERTER	PCT/US08/071143	7/25/2008			WIPO	PUBLISHED
DC 3805-046 PCT	DISPLAY OF NON-LINKED EOT UNITS HAVING AN EMERGENCY STATUS	PCT/US2008/071146	7/25/2008			WIPO	PUBLISHED
DC 3805-048 PCT	FUEL EFFICIENCY IMPROVEMENT FOR LOCOMOTIVE CONSISTS	PCT/US2009/050650	7/15/2009			WIPO	PUBLISHED
DC 3805-050 PCT	METHOD AND SYSTEM FOR END OF TRAIN FORCE REPORTING	PCT/US2010/025076	2/23/2010			WIPO	PENDING

RECORDED: 03/24/2010