

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4093415

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY AGREEMENT

**CONVEYING PARTY DATA**

Name	Execution Date
RP CROWN PARENT, LLC	10/12/2016
RP CROWN HOLDING LLC	10/12/2016
JDA SOFTWARE GROUP, INC.	10/12/2016

**RECEIVING PARTY DATA**

<b>Name:</b>	JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT
<b>Street Address:</b>	IL1-1145/54/63, P.O. BOX 6026
<b>City:</b>	CHICAGO
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60680-6026

**PROPERTY NUMBERS Total: 383**

Property Type	Number
Patent Number:	9412079
Patent Number:	9224110
Patent Number:	9224109
Patent Number:	9208467
Patent Number:	9129246
Patent Number:	9043364
Patent Number:	9037535
Patent Number:	8989879
Patent Number:	8972304
Patent Number:	8965549
Patent Number:	8965548
Patent Number:	8965539
Patent Number:	8781868
Patent Number:	8756116
Patent Number:	8744943
Patent Number:	8725678
Patent Number:	8666870
Patent Number:	8650206

PATENT

<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	8606965
<b>Patent Number:</b>	8571945
<b>Patent Number:</b>	8566181
<b>Patent Number:</b>	8560363
<b>Patent Number:</b>	8538996
<b>Patent Number:</b>	8533014
<b>Patent Number:</b>	8494887
<b>Patent Number:</b>	8452627
<b>Patent Number:</b>	8429035
<b>Patent Number:</b>	8428987
<b>Patent Number:</b>	8423395
<b>Patent Number:</b>	8412581
<b>Patent Number:</b>	8396767
<b>Patent Number:</b>	8392363
<b>Patent Number:</b>	8392245
<b>Patent Number:</b>	8380568
<b>Patent Number:</b>	8352336
<b>Patent Number:</b>	8326699
<b>Patent Number:</b>	8321354
<b>Patent Number:</b>	8249952
<b>Patent Number:</b>	8244601
<b>Patent Number:</b>	8239426
<b>Patent Number:</b>	8214250
<b>Patent Number:</b>	8204922
<b>Patent Number:</b>	8140345
<b>Patent Number:</b>	8135630
<b>Patent Number:</b>	8126775
<b>Patent Number:</b>	8117327
<b>Patent Number:</b>	8117326
<b>Patent Number:</b>	8117059
<b>Patent Number:</b>	8108534
<b>Patent Number:</b>	8090630
<b>Patent Number:</b>	8090614
<b>Patent Number:</b>	8086643
<b>Patent Number:</b>	8055369
<b>Patent Number:</b>	8015104
<b>Patent Number:</b>	8005751
<b>Patent Number:</b>	8005699

<b>Property Type</b>	<b>Number</b>
Patent Number:	7966211
Patent Number:	7953656
Patent Number:	7949598
Patent Number:	7941331
Patent Number:	7937282
Patent Number:	7937280
Patent Number:	7933793
Patent Number:	7933673
Patent Number:	7921027
Patent Number:	7917379
Patent Number:	7905393
Patent Number:	7895090
Patent Number:	7886960
Patent Number:	7881985
Patent Number:	7860737
Patent Number:	7856371
Patent Number:	7853505
Patent Number:	7853462
Patent Number:	7848946
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Patent Number:	7721959
Patent Number:	7720748
Patent Number:	7720747
Patent Number:	7712072

Property Type	Number
Patent Number:	7711597
Patent Number:	7711593
Patent Number:	7702562
Patent Number:	7698240
Patent Number:	7685113
Patent Number:	7685015
Patent Number:	7672867
Patent Number:	7672862
Patent Number:	7668761
Patent Number:	7660741
Patent Number:	7660736
Patent Number:	7650334
Patent Number:	7650305
Patent Number:	7647311
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Patent Number:	7639256
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Patent Number:	7620566
Patent Number:	7620561
Patent Number:	7603290
Patent Number:	7594601
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Patent Number:	7580825
Patent Number:	7577554
Patent Number:	7574383
Patent Number:	7562812
Patent Number:	7562044
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Patent Number:	7552095
Patent Number:	7552066
Patent Number:	7539630
Patent Number:	7529688
Patent Number:	7523483
Patent Number:	7523060
Patent Number:	7502757
Patent Number:	7480623
Patent Number:	7475030

<b>Property Type</b>	<b>Number</b>
Patent Number:	7440911
Patent Number:	7412424
Patent Number:	7412404
Patent Number:	7403975
Patent Number:	7386475
Patent Number:	7386459
Patent Number:	7383240
Patent Number:	7379898
Patent Number:	7376600
Patent Number:	7376578
Patent Number:	7373323
Patent Number:	7370009
Patent Number:	7359865
Patent Number:	7349945
Patent Number:	7349868
Patent Number:	7349861
Patent Number:	7346560
Patent Number:	7343355
Patent Number:	7343311
Patent Number:	7337031
Patent Number:	7330829
Patent Number:	7324983
Patent Number:	7324955
Patent Number:	7310646
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Patent Number:	7277862
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Patent Number:	7260550
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Patent Number:	7251614
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Patent Number:	7248937
Patent Number:	7225146
Patent Number:	7216142
Patent Number:	7213232

<b>Property Type</b>	<b>Number</b>
<b>Patent Number:</b>	7213037
<b>Patent Number:</b>	7210624
<b>Patent Number:</b>	7197473
<b>Patent Number:</b>	7177827
<b>Patent Number:</b>	7162453
<b>Patent Number:</b>	7149744
<b>Patent Number:</b>	7139719
<b>Patent Number:</b>	7133848
<b>Patent Number:</b>	7130809
<b>Patent Number:</b>	7127458
<b>Patent Number:</b>	7127416
<b>Patent Number:</b>	7117164
<b>Patent Number:</b>	7110960
<b>Patent Number:</b>	7093233
<b>Patent Number:</b>	7089330
<b>Patent Number:</b>	7089196
<b>Patent Number:</b>	7085729
<b>Patent Number:</b>	7080026
<b>Patent Number:</b>	7073164
<b>Patent Number:</b>	7072848
<b>Patent Number:</b>	7065499
<b>Patent Number:</b>	7062542
<b>Patent Number:</b>	7062540
<b>Patent Number:</b>	7058587
<b>Patent Number:</b>	7055137
<b>Patent Number:</b>	7054841
<b>Patent Number:</b>	7050874
<b>Patent Number:</b>	7043444
<b>Patent Number:</b>	7039833
<b>Patent Number:</b>	7039602
<b>Patent Number:</b>	7039597
<b>Patent Number:</b>	7039562
<b>Patent Number:</b>	7031955
<b>Patent Number:</b>	7024371
<b>Patent Number:</b>	7024265
<b>Patent Number:</b>	7013485
<b>Patent Number:</b>	7003729
<b>Patent Number:</b>	6988111

Property Type	Number
Patent Number:	6988104
Patent Number:	6983421
Patent Number:	6983276
Patent Number:	6980966
Patent Number:	6980885
Patent Number:	6973626
Patent Number:	6963854
Patent Number:	6963849
Patent Number:	6963847
Patent Number:	6957234
Patent Number:	6947982
Patent Number:	6947905
Patent Number:	6944598
Patent Number:	6922675
Patent Number:	6920476
Patent Number:	6898593
Patent Number:	6898472
Patent Number:	6895550
Patent Number:	6895384
Patent Number:	6885902
Patent Number:	6874008
Patent Number:	6873994
Patent Number:	6868299
Patent Number:	6857017
Patent Number:	6854010
Patent Number:	6845499
Patent Number:	6839711
Patent Number:	6836689
Patent Number:	6826538
Patent Number:	6789252
Patent Number:	6785689
Patent Number:	6778991
Patent Number:	6731998
Patent Number:	6708174
Patent Number:	6708161
Patent Number:	6658413
Patent Number:	6631363
Patent Number:	6609101

<b>Property Type</b>	<b>Number</b>
Patent Number:	6591153
Patent Number:	6577304
Patent Number:	6574619
Patent Number:	6567783
Patent Number:	6560502
Patent Number:	6560501
Patent Number:	6490566
Patent Number:	6462736
Patent Number:	6456996
Patent Number:	6442554
Patent Number:	6442528
Patent Number:	6415196
Patent Number:	6397192
Patent Number:	6397191
Patent Number:	6374249
Patent Number:	6374227
Patent Number:	6366922
Patent Number:	6336097
Patent Number:	6334146
Patent Number:	6332155
Patent Number:	6332130
Patent Number:	6321230
Patent Number:	6321207
Patent Number:	6289385
Patent Number:	6289384
Patent Number:	6266655
Patent Number:	6233572
Patent Number:	6233493
Patent Number:	6222533
Patent Number:	6199059
Patent Number:	6188989
Patent Number:	6169992
Patent Number:	6167380
Patent Number:	6119149
Patent Number:	6055533
Patent Number:	6055519
Patent Number:	6047290
Patent Number:	6031984



<b>Property Type</b>	<b>Number</b>
Patent Number:	5995945
Patent Number:	5983194
Patent Number:	5974395
Patent Number:	5943244
Patent Number:	5937155
Patent Number:	5931900
Application Number:	15260976
Application Number:	15254989
Application Number:	15230282
Application Number:	15177223
Application Number:	15140169
Application Number:	15093449
Application Number:	15011953
Application Number:	14966785
Application Number:	14966947
Application Number:	14951841
Application Number:	14877526
Application Number:	14868681
Application Number:	14845762
Application Number:	14738546
Application Number:	14729444
Application Number:	14720399
Application Number:	14715423
Application Number:	14697259
Application Number:	14635906
Application Number:	14634780
Application Number:	14628875
Application Number:	14331038
Application Number:	14305976
Application Number:	14216477
Application Number:	14210373
Application Number:	14195611
Application Number:	14176905
Application Number:	14064623
Application Number:	14059031
Application Number:	14021166
Application Number:	13972560
Application Number:	13947267

<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	13873154
<b>Application Number:</b>	13867310
<b>Application Number:</b>	13854802
<b>Application Number:</b>	13783734
<b>Application Number:</b>	13769467
<b>Application Number:</b>	13735658
<b>Application Number:</b>	13533104
<b>Application Number:</b>	13264576
<b>Application Number:</b>	13327743
<b>Application Number:</b>	13327718
<b>Application Number:</b>	13327567
<b>Application Number:</b>	13021280
<b>Application Number:</b>	13012175
<b>Application Number:</b>	12947323
<b>Application Number:</b>	12825045
<b>Application Number:</b>	12619805
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<b>Application Number:</b>	12607043
<b>Application Number:</b>	12569813
<b>Application Number:</b>	12427897
<b>Application Number:</b>	12409180
<b>Application Number:</b>	12402099
<b>Application Number:</b>	12102247
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<b>Application Number:</b>	12021103
<b>Application Number:</b>	11941493
<b>Application Number:</b>	11931717
<b>Application Number:</b>	11927209
<b>Application Number:</b>	11877825
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<b>Application Number:</b>	11876120
<b>Application Number:</b>	11876089
<b>Application Number:</b>	11872464
<b>Application Number:</b>	11697816
<b>Application Number:</b>	11604500
<b>Application Number:</b>	11444314
<b>Application Number:</b>	11429328

Property Type	Number
Application Number:	11371985
Application Number:	11218876
Application Number:	11158371
Application Number:	11109346
Application Number:	11105109
Application Number:	10739979
Application Number:	10165640
Application Number:	10108939
Application Number:	10002433
Application Number:	09971718
Application Number:	09956439
Application Number:	09944735
Application Number:	09685517
Application Number:	09688032
Application Number:	09684074
Application Number:	09639491
Application Number:	62240736
Application Number:	62248563
Application Number:	62287256
Application Number:	62321123
Application Number:	62336244
Application Number:	62358292
Application Number:	62361118

**CORRESPONDENCE DATA**

**Fax Number:** (800)914-4240

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 800-713-0755

**Email:** Michael.Violet@wolterskluwer.com

**Correspondent Name:** MICHAEL VIOLET

**Address Line 1:** 4400 EASTON COMMONS WAY

**Address Line 2:** SUITE 125

**Address Line 4:** COLUMBUS, OHIO 43219

**NAME OF SUBMITTER:** ELAINE CARRERA

**SIGNATURE:** /Elaine Carrera/

**DATE SIGNED:** 10/12/2016

**Total Attachments: 25**

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### RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

**1. Name of conveying party(ies)**  
RP Crown Parent, LLC  
RP Crown Holding LLC  
JDA Software Group, Inc.

**2. Name and address of receiving party(ies)**  
Name: JPMorgan Chase Bank, N.A., as Collateral Agent  
Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached?  Yes  No

**3. Nature of conveyance/Execution Date(s):**  
Execution Date(s) October 12, 2016  
 Assignment  Merger  
 Security Agreement  Change of Name  
 Joint Research Agreement  
 Government Interest Assignment  
 Executive Order 9424, Confirmatory License  
 Other \_\_\_\_\_

Street Address: IL1-1145/54/63, P.O. Box 6026  
City: Chicago  
State: IL  
Country: USA Zip: 60680-6026

Additional name(s) & address(es) attached?  Yes  No

**4. Application or patent number(s):**  This document is being filed together with a new application.  
A. Patent Application No.(s)  
See Schedule I

B. Patent No.(s)  
See Schedule I

Additional numbers attached?  Yes  No

**5. Name and address to whom correspondence concerning document should be mailed:**  
Name: Elaine Carrera, Legal Assistant  
Internal Address: \_\_\_\_\_  
Street Address: c/o Cahill Gordon & Reindel LLP  
80 Pine Street  
City: New York  
State: NY Zip: 10005  
Phone Number: (212) 701-3365  
Docket Number: \_\_\_\_\_  
Email Address: ecarrera@cahill.com

**6. Total number of applications and patents involved:** 384

**7. Total fee (37 CFR 1.21(h) & 3.41) \$** \_\_\_\_\_  
 Authorized to be charged to deposit account  
 Enclosed  
 None required (government interest not affecting title)

**8. Payment Information**  
Deposit Account Number \_\_\_\_\_  
Authorized User Name \_\_\_\_\_

**9. Signature:** Elaine Carrera October 12, 2016  
Signature Date

Elaine Carrera  
Name of Person Signing  
Total number of pages including cover sheet, attachments, and documents: 25

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

**PATENT SECURITY AGREEMENT**

PATENT SECURITY AGREEMENT, dated as of October 12, 2016, by RP CROWN PARENT, LLC, a Delaware limited liability company, and the Persons listed on the signature pages hereof (individually, a “Grantor,” and, collectively, the “Grantors”), in favor of JPMORGAN CHASE BANK, N.A., in its capacity as collateral agent pursuant to the Credit Agreement (in such capacity, the “Collateral Agent”).

## WITNESSETH:

WHEREAS, the Grantors are party to a Security Agreement dated as of October 12, 2016 (as amended, amended and restated, supplemented or otherwise modified from time to time, the “Security Agreement”) in favor of the Collateral Agent pursuant to which the Grantors are required to execute and deliver this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and to induce the Collateral Agent, for the benefit of the Secured Parties, to enter into the Credit Agreement, the Grantors hereby agree with the Collateral Agent as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. Grant of Security Interest in Patent Collateral. Each Grantor hereby pledges and grants to the Collateral Agent for the benefit of the Secured Parties a lien on and security interest in and to all of its right, title and interest in, to and under all the following Collateral (excluding any Excluded Assets) of such Grantor:

(a) all issued and applied for United States Patents of such Grantor, including those listed on Schedule I attached hereto.

SECTION 3. The Security Agreement. The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interest granted to the Collateral Agent pursuant to the Security Agreement and the Grantors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the United States Patents made and granted hereby are more fully set forth in the Security Agreement. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control unless the Collateral Agent shall otherwise determine.

SECTION 4. Termination. Upon the termination of the Security Agreement in accordance with Section 6.11 thereof, the Collateral Agent shall, at the expense of such Grantor, execute, acknowledge, and deliver to the Grantors an instrument reasonably requested by such Grantor in writing in recordable form releasing the lien on and security interest in the Patents under this Patent Security Agreement.

SECTION 5. Counterparts. This Patent Security Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and any party


hereto may execute this Patent Security Agreement by signing and delivering one or more counterparts. Delivery of an executed signature page to this Patent Security Agreement by facsimile or other electronic transmission shall be effective as delivery of a manually signed counterpart of this Patent Security Agreement.

SECTION 6. Intercreditor Agreements. Notwithstanding any provision to the contrary contained herein, the terms of this Patent Security Agreement, the Liens created hereby and the rights and remedies of the Collateral Agent hereunder are subject to the terms of each applicable Intercreditor Agreement. In the event of any conflict or inconsistency between the terms of this Patent Security Agreement and an Intercreditor Agreement, the terms of that Intercreditor Agreement shall govern.


[Signature pages follow.]

IN WITNESS WHEREOF, the parties have duly executed this Patent Security Agreement as of the date first above written.


RP CROWN HOLDING LLC

By:   
Name: Martin T. Felli  
Title: Vice President and Secretary

RP CROWN PARENT, LLC

By:   
Name: Martin T. Felli  
Title: Vice President and Secretary

JDA SOFTWARE GROUP, INC.

By:   
Name: Martin T. Felli  
Title: Vice President and Secretary



JPMORGAN CHASE BANK, N.A., as Collateral Agent

By:



Name:

Title:

Timothy D. Lee  
Vice President

[Project Concert - Signature Page to Patent Security Agreement]

## Schedule I

### United States Patent and Patent Applications

Registered Owner / Applicant:	Name of Patent	Registration / Publication / Application / Patent Number
JDA Software Group, Inc.	System and Method of Scenario Versioning	9,412,079
JDA Software Group, Inc.	Sub-Problem Optimization of Supply Chain Planning Problems	9,224,110
JDA Software Group, Inc.	Filtered Peer-to-Peer Business Communication in a Distributed Computer Environment	9,224,109
JDA Software Group, Inc.	Optimizing Inventory In Accordance with a Constrained Network	9,208,467
JDA Software Group, Inc.	System and method for facilitating communication of data among entities in an electronic trading network	9,129,246
JDA Software Group, Inc.	System and method for providing an intelligent configuration rationalization solution	9,043,364
JDA Software Group, Inc.	System of centrally managing core reference data associated with an enterprise	9,037,535
JDA Software Group, Inc.	System and Method for a Demand Driven Lean Production Control System	8,989,879
JDA Software Group, Inc.	System and Method of Vessel Scheduling for Product Distribution	8,972,304
JDA Software Group, Inc.	Continuous Production Planning Using a Transition Matrix	8,965,549
JDA Software Group, Inc.	System and Method of Solving Supply Chain Campaign Planning Problems Involving Major and Minor Setups	8,965,548
JDA Software Group, Inc.	System and Method for a Demand Driven Lean Production Control System	8,965,539
JDA Software Group, Inc.	Determining an Inventory Target for a Node of a Supply Chain	8,781,868
JDA Software Group, Inc.	Pre-Qualifying Sellers During The Matching Phase of an Electronic Commerce Transaction	8,756,116
JDA Software Group, Inc.	Displaying Values Specified in a Number of Offers for a Number of Offer Variables with Respect to Price	8,744,943
JDA Software Group, Inc.	System of centrally managing core reference data associated with an enterprise	8,725,678

JDA Software Group, Inc.	Configurable State Model for Supply Chain Management	8,666,870
JDA Software Group, Inc.	System and Method for Providing Buffer Inventory Profile in a Discrete Time Supply Chain Planner using a Nested Bucketization Structure	8,650,206
JDA Software Group, Inc.	System and method for facilitating communication of data among entities in an electronic trading network	8,606,965
JDA Software Group, Inc.	Pre-Qualifying Sellers During the Matching Phase of an Electronic Commerce Transaction	8,571,945
JDA Software Group, Inc.	Incorporating a repair vendor into repair planning for supply chain	8,566,181
JDA Software Group, Inc.	Continuous production planning using a transition matrix	8,560,363
JDA Software Group, Inc.	System and Method for Providing an Intelligent Configuration Rationalization Solution	8,538,996
JDA Software Group, Inc.	System And Method Providing Levelness Of A Production Schedule	8,533,014
JDA Software Group, Inc.	Generating an optimized pricing plan	8,494,887
JDA Software Group, Inc.	Determining an Inventory Target for a Node of a Supply Chain	8,452,627
JDA Software Group, Inc.	System and method of solving large scale supply chain planning problems with integer constraints	8,429,035
JDA Software Group, Inc.	Determining order lead time for a supply chain using a probability distribution of order lead time	8,428,987
JDA Software Group, Inc.	System and method for managing data associated with available to-promise (ATP) products	8,423,395
JDA Software Group, Inc.	Facilitating business transactions between trading networks	8,412,581
JDA Software Group, Inc.	Displaying values specified in a number of offers for a number of offer variables with respect to price	8,396,767
JDA Software Group, Inc.	Master data management system for centrally managing core reference data associated with an enterprise	8,392,363
JDA Software Group, Inc.	System and method for rendering content according to availability data for one or more items	8,392,245
JDA Software Group, Inc.	Distributing consumer demand upstream in a supply chain	8,380,568
JDA Software Group, Inc.	System and method for allocating manufactured products to sellers using profitable order promising	8,352,336

JDA Software Group, Inc.	Pre-qualifying sellers during the matching phase of an electronic commerce transaction	8,326,699
JDA Software Group, Inc.	System, computer-implemented method, and software for vessel scheduling for product distribution	8,321,354
JDA Software Group, Inc.	Incorporating a repair vendor into repair planning for a supply chain	8,249,952
JDA Software Group, Inc.	Generating an order plan for a supply chain network	8,244,601
JDA Software Group, Inc.	Data management system providing a data thesaurus for mapping between multiple data schemas or between multiple domains within a data schema	8,239,426
JDA Software Group, Inc.	System and method for multi-enterprise supply chain optimization	8,214,250
JDA Software Group, Inc.	Master data management system for centrally managing core reference data associated with an enterprise	8,204,922
JDA Software Group, Inc.	System and method for performing a business process in a multi-enterprise collaborating network	8,140,345
JDA Software Group, Inc.	Intelligent fulfillment agents	8,135,630
JDA Software Group, Inc.	Method and system for transmittal of extended data attributes for product items, pricing and trade promotion transactions	8,126,775
JDA Software Group, Inc.	Data integration system with programmatic source and target interfaces	8,117,327
JDA Software Group, Inc.	Data integration system with programmatic source and target interfaces	8,117,326
JDA Software Group, Inc.	Pull planning for serviceable parts to facilitate on-demand repair planning	8,117,059
JDA Software Group, Inc.	Data integration system with programmatic source and target interfaces	8,108,534
JDA Software Group, Inc.	Planning a supply of items to a first location associated with a supply chain from one or more second locations associated with the supply chain	8,090,630
JDA Software Group, Inc.	Generating a sales volume forecast	8,090,614
JDA Software Group, Inc.	Translation between product classification schemas	8,086,643
JDA Software Group, Inc.	Optimized deployment of parts in a distribution network	8,055,369
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	8,015,104
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	8,005,751

JDA Software Group, Inc.	Value chain management	8,005,699
JDA Software Group, Inc.	Determining an inventory target for a node of a supply chain	7,966,211
JDA Software Group, Inc.	Displaying market data	7,953,656 <sup>1</sup>
JDA Software Group, Inc.	Displaying market data	7,949,598
JDA Software Group, Inc.	Determining order lead time for a supply chain using a probability distribution of order lead time	7,941,331
JDA Software Group, Inc.	Generating an optimized price schedule for a product	7,937,282
JDA Software Group, Inc.	Planning and scheduling of maintenance, repair, and overhaul services	7,937,280
JDA Software Group, Inc.	Constraint-based production planning and scheduling	7,933,793
JDA Software Group, Inc.	Demand breakout for a supply chain	7,933,673
JDA Software Group, Inc.	Constraint-based production planning and scheduling	7,921,027
JDA Software Group, Inc.	Large-scale supply chain planning system and method	7,917,379
JDA Software Group, Inc.	Generating an optimized supplier allocation plan	7,905,393
JDA Software Group, Inc.	Generating an order plan for a supply chain network	7,895,090
JDA Software Group, Inc.	Redistribution of parts in a distribution network	7,886,960
JDA Software Group, Inc.	Electronic marketplace providing service parts inventory planning and management	7,881,985
JDA Software Group, Inc.	Constraint-based production planning and scheduling	7,860,737
JDA Software Group, Inc.	Pull planning for unserviceable parts in connection with on-demand repair planning	7,856,371
JDA Software Group, Inc.	Displaying market data	7,853,505
JDA Software Group, Inc.	Optimizing an inventory of a supply chain	7,853,462
JDA Software Group, Inc.	Sales history decomposition	7,848,946
JDA Software Group, Inc.	Estimating demand for a supply chain according to order lead time	7,827,049
JDA Software Group, Inc.	Displaying strikes between bids and asks in a market over time using polygons	7,818,243

<sup>1</sup> Confirmatory License: University of Florida to National Science Foundation executed 4/13/2012 and recorded 5/10/2012 at reel/frame 028185/0521.

JDA Software Group, Inc.	Association of data with a product classification schema	7,809,672
JDA Software Group, Inc.	Intelligent-fulfillment agents	7,788,145
JDA Software Group, Inc.	System providing for inventory optimization in association with a centrally managed master repository for core reference data associated with an enterprise	7,788,119
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	7,774,265
JDA Software Group, Inc.	Enterprise solution framework incorporating a master data management system for centrally managing core reference data associated with an enterprise	7,765,185
JDA Software Group, Inc.	Determining a policy parameter for an entity of a supply chain	7,761,903
JDA Software Group, Inc.	Binary trees for detecting inventory problems in an enterprise model	7,752,246
JDA Software Group, Inc.	Binary trees for detecting inventory problems in an enterprise model	7,752,245
JDA Software Group, Inc.	Binary trees for detecting inventory problems in an enterprise model	7,752,244
JDA Software Group, Inc.	Extreme capacity management in an electronic marketplace environment	7,747,481
JDA Software Group, Inc.	Binary trees for detecting inventory problems in an enterprise model	7,739,222
JDA Software Group, Inc.	Optimization using a multi-dimensional data model	7,734,617
JDA Software Group, Inc.	Master data management system for centrally managing core reference data associated with an enterprise	7,725,429
JDA Software Group, Inc.	Optimizing inventory in accordance with a constrained network	7,721,959
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	7,720,748
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	7,720,747
JDA Software Group, Inc.	Optimizing inventory in accordance with a constrained network	7,712,072
JDA Software Group, Inc.	Optimizing inventory in accordance with a constrained network	7,711,597
JDA Software Group, Inc.	Pull planning for unserviceable parts in connection with on-demand repair planning	7,711,593
JDA Software Group, Inc.	Providing visualization of market offers using patterns of geometric display elements	7,702,562

JDA Software Group, Inc.	System and method for providing electronic financial transaction services	7,698,240
JDA Software Group, Inc.	Demand breakout for a supply chain	7,685,113
JDA Software Group, Inc.	Optimized deployment of parts in a supply chain network	7,685,015
JDA Software Group, Inc.	Optimized deployment of parts in a distribution network	7,672,867
JDA Software Group, Inc.	Generating a supply chain plan	7,672,862
JDA Software Group, Inc.	System and method for ensuring order fulfillment	7,668,761
JDA Software Group, Inc.	Sourcing under quantity pricing rules	7,660,741
JDA Software Group, Inc.	Computer-implemented product valuation tool	7,660,736
JDA Software Group, Inc.	Content enhancement for analyzing data in a database	7,650,334
JDA Software Group, Inc.	Displaying market data	7,650,305
JDA Software Group, Inc.	Content enhancement for analyzing data in a database	7,647,311
JDA Software Group, Inc.	Demand planning using exchange balances	7,640,180
JDA Software Group, Inc.	System and method for displaying graphs	7,639,256
JDA Software Group, Inc.	Locally generating price quotes using one or more pricing tools received from a seller	7,620,575
JDA Software Group, Inc.	Providing decision support through visualization of participant past performance in an electronic commerce environment	7,620,566
JDA Software Group, Inc.	On-demand repair planning	7,620,561
JDA Software Group, Inc.	System and computer implemented method for facilitating order entry	7,603,290
JDA Software Group, Inc.	Optimized deployment of parts in a distribution network	7,594,601
JDA Software Group, Inc.	System and method for facilitating electronic commerce transactions	7,590,558
JDA Software Group, Inc.	Demand breakout for a supply chain	7,590,555
JDA Software Group, Inc.	Redistribution of parts in a distribution network	7,580,825
JDA Software Group, Inc.	Workflow modeling using an acyclic directed graph data structure	7,577,554
JDA Software Group, Inc.	System and method for providing distributed inventory management	7,574,383
JDA Software Group, Inc.	Redistribution of parts in a distribution network	7,562,812
JDA Software Group, Inc.	System and method for dynamic pricing in an unbalanced market	7,562,044

JDA Software Group, Inc.	System and method for identifying a product	7,555,447
JDA Software Group, Inc.	Computer-implemented product valuation tool	7,552,095
JDA Software Group, Inc.	Method and system for retail store supply chain sales forecasting and replenishment shipment determination	7,552,066
JDA Software Group, Inc.	System, method, and computer program for replenishment by manufacture with attribute based planning	7,539,630
JDA Software Group, Inc.	Baseline cost savings analysis	7,529,688
JDA Software Group, Inc.	Determining a policy parameter for an entity of a supply chain	7,523,483
JDA Software Group, Inc.	System and method for negotiating according to improved matching criteria	7,523,060
JDA Software Group, Inc.	System and method for matching buyers and sellers in a marketplace	7,502,757
JDA Software Group, Inc.	Method and system for determining time-phased product sales forecasts and projected replenishment shipments for a retail store supply chain	7,480,623
JDA Software Group, Inc.	Facilitating electronic commerce transactions using a shared product data repository	7,475,030
JDA Software Group, Inc.	Distributed quote management	7,440,911
JDA Software Group, Inc.	Third party certification of content in electronic commerce transactions	7,412,424
JDA Software Group, Inc.	Generating, updating, and managing multi-taxonomy environments	7,412,404
JDA Software Group, Inc.	Design for highly-scalable, distributed replenishment planning algorithm	7,403,975
JDA Software Group, Inc.	Generation and execution of custom requests for quote	7,386,475
JDA Software Group, Inc.	Filtered peer-to-peer business communication in a distributed computer environment	7,386,459
JDA Software Group, Inc.	Operationalizing a goal	7,383,240
JDA Software Group, Inc.	System and method for generating market pricing information for non-fungible items	7,379,898
JDA Software Group, Inc.	Intelligent fulfillment agents	7,376,600
JDA Software Group, Inc.	Computer-implemented product valuation tool	7,376,578
JDA Software Group, Inc.	Method and system for multi-enterprise optimization using flexible trade contracts	7,373,323
JDA Software Group, Inc.	Extreme capacity management in an electronic marketplace environment	7,370,009



JDA Software Group, Inc.	Generating a risk assessment regarding a software implementation project	7,359,865
JDA Software Group, Inc.	System and method for managing event publication and subscription	7,349,945
JDA Software Group, Inc.	Pre-qualifying sellers during the matching phase of an electronic commerce transaction	7,349,868
JDA Software Group, Inc.	Value chain management	7,349,861
JDA Software Group, Inc.	Protecting content from unauthorized reproduction	7,346,560
JDA Software Group, Inc.	Calculating price elasticity	7,343,355
JDA Software Group, Inc.	Generating an optimized supplier allocation plan	7,343,311
JDA Software Group, Inc.	Optimized deployment of parts in a distribution network	7,337,031
JDA Software Group, Inc.	Providing market feedback associated with electronic commerce transactions to sellers	7,330,829
JDA Software Group, Inc.	Reproducible selection of members in a hierarchy	7,324,983
JDA Software Group, Inc.	Generating a sales volume forecast	7,324,955
JDA Software Group, Inc.	Data management system providing a data thesaurus for mapping between multiple data schemas or between multiple domains within a data schema	7,310,646
JDA Software Group, Inc.	System and method for migrating data in an electronic commerce system	7,299,255
JDA Software Group, Inc.	Configurable pricing optimization system	7,287,000
JDA Software Group, Inc.	Electronic marketplace communication system	7,277,863
JDA Software Group, Inc.	Push planning for unserviceable parts to facilitate repair planning in a repair network	7,277,862
JDA Software Group, Inc.	Optimization using a multi-dimensional data model	7,266,549
JDA Software Group, Inc.	Content enhancement in an electronic marketplace	7,263,515
JDA Software Group, Inc.	System and method for multi-enterprise supply chain optimization	7,260,550
JDA Software Group, Inc.	System and method for performing a business process in a multi-enterprise, collaborating network	7,257,541
JDA Software Group, Inc.	Forecasting a last time buy quantity for a service part using a low-pass filter approach	7,251,614
JDA Software Group, Inc.	Fulfillment management system for managing atp data in a distributed supply chain environment	7,249,044
JDA Software Group, Inc.	Demand breakout for a supply chain	7,248,937
JDA Software Group, Inc.	Method, system and article of manufacturing for dynamic database redirection using semantic taxonomy information	7,225,146

JDA Software Group, Inc.	Network application program interface facilitating communication in a distributed network environment	7,216,142
JDA Software Group, Inc.	System and method for configuring software using a business modeling tool	7,213,232
JDA Software Group, Inc.	Master data management system for centrally managing cached data representing core enterprise reference data maintained as locked in true state read only access until completion of manipulation process	7,213,037
JDA Software Group, Inc.	Redistribution of parts in a distribution network	7,210,624
JDA Software Group, Inc.	Estimating base sales volume	7,197,473
JDA Software Group, Inc.	Generating an order plan for a supply chain network	7,177,827
JDA Software Group, Inc.	Protecting content from unauthorized reproduction	7,162,453
JDA Software Group, Inc.	Third party document storage and reuse	7,149,744
JDA Software Group, Inc.	System for scheduling product planning	7,139,719
JDA Software Group, Inc.	Dynamic pricing system	7,133,848
JDA Software Group, Inc.	System for planning a new product portfolio	7,130,809
JDA Software Group, Inc.	Matching and cleansing of part data	7,127,458
JDA Software Group, Inc.	Distributed processing of search results in an electronic commerce system	7,127,416
JDA Software Group, Inc.	System and method of demand planning for intermediate and by-products	7,117,164
JDA Software Group, Inc.	Event revenue management system	7,110,960
JDA Software Group, Inc.	Computer implemented automatic classification of product description information	7,093,233
JDA Software Group, Inc.	System and method for transforming custom content generation tags associated with web pages	7,089,330
JDA Software Group, Inc.	System and method for lean inventory management	7,089,196
JDA Software Group, Inc.	System and method for allocating manufactured products to sellers	7,085,729
JDA Software Group, Inc.	Supply chain demand forecasting and planning	7,080,026
JDA Software Group, Inc.	Software deployment system and method	7,073,164
JDA Software Group, Inc.	Promotion pricing system and method	7,072,848
JDA Software Group, Inc.	Intelligent order promising	7,065,499
JDA Software Group, Inc.	Local and remote client-server interface transparency in distributed software systems	7,062,542

JDA Software Group, Inc.	System and method for remotely monitoring and managing applications across multiple domains	7,062,540
JDA Software Group, Inc.	System and method for allocating the supply of critical material components and manufacturing capacity	7,058,587
JDA Software Group, Inc.	Distributed automated software graphical user interface (gui) testing	7,055,137
JDA Software Group, Inc.	Document storage and classification	7,054,841
JDA Software Group, Inc.	Sourcing of bills of materials	7,050,874
JDA Software Group, Inc.	Synchronization of planning information in a high availability planning and scheduling architecture	7,043,444
JDA Software Group, Inc.	Stack trace generated code compared with database to find error resolution information	7,039,833
JDA Software Group, Inc.	Configuring products with default sections determined according to optimization functions	7,039,602
JDA Software Group, Inc.	Method and system for managing collaboration within and between enterprises	7,039,597
JDA Software Group, Inc.	Graphical design and automatic generation of supply chain collaboration services capable of understanding supply chain semantics	7,039,562
JDA Software Group, Inc.	Optimization using a multi-dimensional data model	7,031,955
JDA Software Group, Inc.	High availability planning and scheduling architecture	7,024,371
JDA Software Group, Inc.	Collaborative batch aggregation and scheduling in a manufacturing environment	7,024,265
JDA Software Group, Inc.	Computer security system	7,013,485
JDA Software Group, Inc.	Method and apparatus for supporting multiple alternative graphical user interfaces in computer-mediated electronic commerce	7,003,729
JDA Software Group, Inc.	Mapping between part numbers that are based on different part numbering schemes	6,988,111
JDA Software Group, Inc.	System and method for allocating data in a hierarchical organization of data	6,988,104
JDA Software Group, Inc.	Using connectors to automatically update graphical user interface elements at a client system according to an updated state of a configuration	6,983,421
JDA Software Group, Inc.	Facilitating electronic commerce transactions using buyer profiles	6,983,276
JDA Software Group, Inc.	Guided buying decision support in an electronic marketplace environment	6,980,966
JDA Software Group, Inc.	Routing shipments according to criticality	6,980,885

JDA Software Group, Inc.	Automatically generating graphical user interface elements at a client system according to a current configuration model	6,973,626
JDA Software Group, Inc.	Target pricing system	6,963,854
JDA Software Group, Inc.	Providing decision support based on past participant performance within an electronic marketplace environment	6,963,849
JDA Software Group, Inc.	System and method for managing atp data in a distributed supply chain planning environment	6,963,847
JDA Software Group, Inc.	System and method for retrieving data from a database using a data management system	6,957,234
JDA Software Group, Inc.	Distributed session services	6,947,982
JDA Software Group, Inc.	System and method for displaying planning information associated with a supply chain	6,947,905
JDA Software Group, Inc.	Binary trees for detecting inventory problems in an enterprise model	6,944,598
JDA Software Group, Inc.	System and method for service transaction brokering among distributed marketplaces	6,922,675
JDA Software Group, Inc.	Messaging system for computers	6,920,476
JDA Software Group, Inc.	Sorted-paged retrieval of hierarchical data from relational databases	6,898,593
JDA Software Group, Inc.	System and method for order group planning with attribute based planning	6,898,472
JDA Software Group, Inc.	Computer-implemented pdf document management	6,895,550
JDA Software Group, Inc.	Method and system for optimizing request-promise workflows	6,895,384
JDA Software Group, Inc.	System and method for replenishment by purchase with a tribute based planning	6,885,902
JDA Software Group, Inc.	Workflow encapsulation in stateless environments	6,874,008
JDA Software Group, Inc.	Conflict detection and resolution in association with data allocation	6,873,994
JDA Software Group, Inc.	Generating a sampling plan for testing generated content	6,868,299
JDA Software Group, Inc.	Customizable user window	6,857,017
JDA Software Group, Inc.	Multi-location management system	6,854,010
JDA Software Group, Inc.	System and method for developing software applications using an extended xml-based framework	6,845,499
JDA Software Group, Inc.	Configurable space-time performance trade-off in multidimensional data base systems	6,839,711

JDA Software Group, Inc.	Collaborative batch aggregation and scheduling in a manufacturing environment	6,836,689
JDA Software Group, Inc.	Method for planning key component purchases to optimize revenue	6,826,538
JDA Software Group, Inc.	Method and apparatus-for building business objects and business software applications using dynamic object definition	6,789,252
JDA Software Group, Inc.	Consolidation of multiple source content schemas into a single target content schema	6,785,689
JDA Software Group, Inc.	Dynamic load balancing using semantic traffic monitoring	6,778,991
JDA Software Group, Inc.	Collaboratively solving an optimization problem using first and second optimization software each having at least partial information concerning the optimization problem	6,731,998
JDA Software Group, Inc.	System and method for retrieving information according to improved matching criteria	6,708,174
JDA Software Group, Inc.	System and method for selective database indexing	6,708,161
JDA Software Group, Inc.	Multidimensional database system with intermediate lockable intersections	6,658,413
JDA Software Group, Inc.	Rules-based notification system	6,631,363
JDA Software Group, Inc.	Method and system for determining time-phased product sales forecasts and projected replenishment shipments for a retail stores supply chain	6,609,101
JDA Software Group, Inc.	System and methods for scheduling manufacturing resources	6,591,153
JDA Software Group, Inc.	System and method for visually representing a supply chain	6,577,304
JDA Software Group, Inc.	System and method for providing cross-dimensional computation and data access in an on-line analytical processing (olap) environment	6,574,619
JDA Software Group, Inc.	Communication across one or more enterprise boundaries regarding the occurrence of a workflow event	6,567,783
JDA Software Group, Inc.	System and method for campaign planning	6,560,502
JDA Software Group, Inc.	System and method for collaborative batch aggregation and scheduling	6,560,501
JDA Software Group, Inc.	Graph-based schedule builder for tightly constrained scheduling problems	6,490,566
JDA Software Group, Inc.	System and method providing a three-dimensional display of values relative to comparison values	6,462,736

JDA Software Group, Inc.	Computer implemented scheduling system and process using abstract local search technique	6,456,996
JDA Software Group, Inc.	System and method for generating dependent data	6,442,554
JDA Software Group, Inc.	Exemplar workflow used in the design and deployment of a workflow for multi-enterprise collaboration	6,442,528
JDA Software Group, Inc.	Manufacturing scheduling process with improved modeling, scheduling and editing capabilities for solving finite capacity planning problems	6,415,196
JDA Software Group, Inc.	Synchronizing one or more workflows using one or more synchronization-join activities that include synchronization logic	6,397,192
JDA Software Group, Inc.	Object-oriented workflow for multi-enterprise collaboration	6,397,191
JDA Software Group, Inc.	Data structure and operations for time-varying variable in an enterprise model	6,374,249
JDA Software Group, Inc.	System and method for optimizing the allocation of a resource	6,374,227
JDA Software Group, Inc.	Multi-dimensional data management system	6,366,922
JDA Software Group, Inc.	Apparatus, systems and methods for constructing large numbers of travel fares	6,336,097
JDA Software Group, Inc.	System and method for remotely accessing data	6,334,146
JDA Software Group, Inc.	System and process allowing collaboration within and between enterprises for optimal decision making	6,332,155
JDA Software Group, Inc.	System and process for inter-domain planning analysis and optimization using model agents as partial replicas of remote domains	6,332,130
JDA Software Group, Inc.	Binary tree with override nodes for representing a time-varying function in an enterprise model	6,321,230
JDA Software Group, Inc.	System and method for optimizing the allocation of a resource	6,321,207
JDA Software Group, Inc.	Computer workspace providing event management based on a permissibility framework	6,289,385
JDA Software Group, Inc.	System and method for event notification through a firewall	6,289,384
JDA Software Group, Inc.	Computer-implemented value management tool for an asset intensive manufacturer	6,266,655
JDA Software Group, Inc.	Computer implemented system and method for high level controlled searching through a problem space	6,233,572

JDA Software Group, Inc.	Computer-implemented product development planning method	6,233,493
JDA Software Group, Inc.	System and process having a universal adapter framework and providing a global user interface and global messaging bus	6,222,533
JDA Software Group, Inc.	System and method for classifying and retrieving information with virtual object hierarchy	6,199,059
JDA Software Group, Inc.	System and method for managing available to promise product(atp)	6,188,989
JDA Software Group, Inc.	Search engine for remote access to database management systems	6,169,992
JDA Software Group, Inc.	System and method for allocating manufactured products to sellers	6,167,380
JDA Software Group, Inc.	System and process allowing collaboration within and between enterprises for optimal decision making	6,119,149
JDA Software Group, Inc.	Software system utilizing a filtered priority queue and method of operation	6,055,533
JDA Software Group, Inc.	A framework for negotiation and tracking of sale of goods	6,055,519
JDA Software Group, Inc.	Computer implemented planning system and process providing mechanism for grouping and prioritizing consumer objects based on multiple criteria	6,047,290
JDA Software Group, Inc.	Method and apparatus for optimizing constraint models	6,031,984
JDA Software Group, Inc.	System and process for inter-domain planning analysis and optimization using model agents as partial replicas of remote domains	5,995,945
JDA Software Group, Inc.	Factory network having planning coordination systems for coordinating separate factory planning systems and a method of operation	5,983,194
JDA Software Group, Inc.	System and method for extended enterprise planning across a supply chain	5,974,395
JDA Software Group, Inc.	System for optimizing a network plan and method of operation	5,943,244
JDA Software Group, Inc.	Model-independent and interactive report generation system and method of operation	5,937,155
JDA Software Group, Inc.	System and process for inter-domain interaction across an inter-domain connectivity plane	5,931,900
JDA Software Group, Inc.	System and Method for Demand Planning	15/260,976 <sup>2</sup>

<sup>2</sup> This patent application could not be verified because it has not yet published.

JDA Software Group, Inc.	A system and method of online ratings trends for demand forecast	15/254,989 <sup>3</sup>
JDA Software Group, Inc.	System and method of scenario versioning	15/230,282 <sup>4</sup>
JDA Software Group, Inc.	System and method of root cause analysis of objective violations and query analysis	15/177,223 <sup>5</sup>
JDA Software Group, Inc.	A mixed integer linear program framework for sensitivity analysis	15/140,169 <sup>6</sup>
JDA Software Group, Inc.	Self-learning supply chain system	2016-0217406 15/093,449
JDA Software Group, Inc.	A distribution-independent inventory approach under multiple service level targets	15/011,953 <sup>7</sup>
JDA Software Group, Inc.	Filtered peer-to-peer business communication in a distributed computer environment	14/966,785 <sup>8</sup>
JDA Software Group, Inc.	Sub-problem optimization of supply chain planning problems	2016-0098660 14/966,947
JDA Software Group, Inc.	Optimizing inventory in accordance with a constrained network	2016-0078385 14/951,841
JDA Software Group, Inc.	A system and method of an attribute-value combination and assortment planner	14/877,526 <sup>9</sup>
JDA Software Group, Inc.	An attribute-based data analytics framework for transferable demand analysis	14/868,681 <sup>10</sup>
JDA Software Group, Inc.	System and method for facilitating communication of data among entities in an electronic trading network	2015-0381432 14/845,762
JDA Software Group, Inc.	System and method of root cause analysis of objective violations	14/738,546 <sup>11</sup>

<sup>3</sup> This patent application could not be verified because it has not yet published.

<sup>4</sup> This patent application could not be verified because it has not yet published.

<sup>5</sup> This patent application could not be verified because it has not yet published.

<sup>6</sup> This patent application could not be verified because it has not yet published.

<sup>7</sup> This patent application could not be verified because it has not yet published.

<sup>8</sup> This patent application could not be verified because it has not yet published.

<sup>9</sup> This patent application could not be verified because it has not yet published.

<sup>10</sup> This patent application could not be verified because it has not yet published.

<sup>11</sup> This patent application could not be verified because it has not yet published.



JDA Software Group, Inc.	Method and system of demand forecasting for inventory management of slow-moving inventory in a supply chain	14/729,444 <sup>12</sup>
JDA Software Group, Inc.	System and method for providing an intelligent configuration rationalization solution	2015-0254749 14/720,399
JDA Software Group, Inc.	System of centrally managing core reference data associated with an enterprise	2015-0254321 14/715,423
JDA Software Group, Inc.	A system and method of a supply chain retail process manager	14/697,259 <sup>13</sup>
JDA Software Group, Inc.	System and method of vessel scheduling for product distribution	2015-0170094 14/635,906
JDA Software Group, Inc.	System and method of a supply chain retail manager	14/634,780 <sup>14</sup>
JDA Software Group, Inc.	System and method of solving supply chain campaign planning problems involving major and minor setups	2015-0170083 14/628,875
JDA Software Group, Inc.	Determining an inventory target for a node of a supply chain	2015-0134397 14/331,038
JDA Software Group, Inc.	Pre-qualifying sellers during the matching phase of an electronic commerce transaction	2014-0297477 14/305,976
JDA Software Group, Inc.	A Framework for Implementing Segmented Dimensions	14/216,477 <sup>15</sup>
JDA Software Group, Inc.	Self-Learning Supply Chain System	14/210,373
JDA Software Group, Inc.	Configurable State Model For Supply Chain Management	2015-0248727 14/195,611
JDA Software Group, Inc.	System and method for providing buffer inventory profile in a discrete time supply chain planner using a nested bucketization structure	2015-0227876 14/176,905
JDA Software Group, Inc.	Pre-Qualifying Sellers During the Matching Phase of an Electronic Commerce Transaction	2014-0052583 14/064,623
JDA Software Group, Inc.	Incorporating A Repair Vendor Into Repair Planning For A Supply Chain	2014-0052491 14/059,031
JDA Software Group, Inc.	<b>System and Method for Providing an Intelligent Configuration Rationalization Solution</b>	2015-0073854 14/021,166

<sup>12</sup> This patent application could not be verified because it has not yet published.

<sup>13</sup> This patent application could not be verified because it has not yet published.

<sup>14</sup> This patent application could not be verified because it has not yet published.

<sup>15</sup> This patent application could not be verified because it has not yet published.

JDA Software Group, Inc.	System and Method for Real-Time Multi-Facet Interactive Planning	13/972,560 <sup>16</sup>
JDA Software Group, Inc.	Generating an Optimized Pricing Plan	2013-0311239 13/947,267
JDA Software Group, Inc.	System and Method of Profitable Order Promising for the Retail Industry	13/873,154 <sup>17</sup>
JDA Software Group, Inc.	System and Method for Solving Large Scale Supply Chain Planning Problems with Integer Constraints	2013-0238385 13/867,310
JDA Software Group, Inc.	Facilitating Business Transactions Between Trading Networks	2013-0332329 13/854,802
JDA Software Group, Inc.	System and Method of Rendering Content According To Availability Data for One or More Items	2013-0246581 13/783,734
JDA Software Group, Inc.	Distributing Consumer Demand Upstream in a Supply Chain	2013-0159046 13/769,467
JDA Software Group, Inc.	System and Method for Allocating Manufactured Products to Sellers Using Profitable Order Promising	2013-0124252 13/735,658
JDA Software Group, Inc.	System and Method for Multi-Enterprise Supply Chain Optimization	2012-0265581 13/533,104
JDA Software Group, Inc.	Travel Price Optimization (TPO)	2012-0116844 13/264,576
JDA Software Group, Inc.	System and Method of Simultaneous Computation of Optimal Order Point and Optimal Order Quantity	13/327,743 <sup>18</sup>
JDA Software Group, Inc.	Computation of Optimal Inventory Targets in Bill-of-Materials in a Multi-Echelon Supply Chain	13/327,718 <sup>19</sup>
JDA Software Group, Inc.	System and Method of Cost Optimal Supply Chain Production and Sourcing Plans	13/327,567 <sup>20</sup>
JDA Software Group, Inc.	Generalizing an Optimized Supplier Allocation Plan	2011-0125470 13/021,280

<sup>16</sup> This patent application could not be verified because it has not yet published.

<sup>17</sup> This patent application could not be verified because it has not yet published.

<sup>18</sup> This patent application could not be verified because it has not yet published.

<sup>19</sup> This patent application could not be verified because it has not yet published.

<sup>20</sup> This patent application could not be verified because it has not yet published.

JDA Software Group, Inc.	System and Method of Solving Supply Chain Plans With Forecast and Demand Variability	13/012,175 <sup>21</sup>
JDA Software Group, Inc.	Electronic Marketplace Providing Service Parts Inventory Planning and Management	2011-0066461 12/947,323
JDA Software Group, Inc.	Extreme Capacity Management in an Electronic Marketplace Environment	2011-0161189 12/825,045
JDA Software Group, Inc.	System and Method for Root Cause Analysis and Early Warning of Inventory Problems	2010-0125489 12/619,805
JDA Software Group, Inc.	System and Method of Parallelizing Order-By-Order Planning	2010-0114640 12/610,548
JDA Software Group, Inc.	Fast Planning Heuristic for Batch and Interactive Planning	2010-0114667 12/607,043
JDA Software Group, Inc.	System and method to determine root cause constraints and resolution options to solve order promising exceptions	2010-0250306 12/569,813
JDA Software Group, Inc.	Dynamically Routing Salvage Shipments and Associated Method	2009-0271236 12/427,897
JDA Software Group, Inc.	Linking Discrete Dimensions to Enhance Dimensional Analysis	2009-0254583 12/409,180
JDA Software Group, Inc.	System and Method for Negotiating According to Improved Matching Criteria	2009-0171856 12/402,099
JDA Software Group, Inc.	Business-to-Business Internet Infrastructure	2008-0256258 12/102,247
JDA Software Group, Inc.	Generic Data Staging and Loading Using Enhanced Metadata and Associated Method	2008-0243884 12/056,555
JDA Software Group, Inc.	Sentient Optimization for Continuous Supply Chain Management	2008-0221953 12/043,240
JDA Software Group, Inc.	Time-Based Decomposition for Optimization of Master Planning Problems	2008-0243570 12/021,103
JDA Software Group, Inc.	Customizable State Machine and State Aggregation Technique for Processing Collaborative and Transactional Business Objects	2008-0065443 11/941,493
JDA Software Group, Inc.	Value Chain Management	2008-0052149 11/931,717
JDA Software Group, Inc.	Enterprise Solution Framework Incorporating a Master Data Management System for Centrally Managing Core Reference Data Associated with an Enterprise	2008-0052310 11/927,209
JDA Software Group, Inc.	Providing Market Feedback Associated with Electronic Commerce Transactions to Sellers	2008-0046273 11/877,825

<sup>21</sup> This patent application could not be verified because it has not yet published.

JDA Software Group, Inc.	Reproducible Selection of Members in a Hierarchy	2008-0040382 11/877,252
JDA Software Group, Inc.	System and Method for Generating Market Pricing Information for Non-Fungible Items	2008-0040294 11/876,120
JDA Software Group, Inc.	Calculating Price Elasticity	2008-0040203 11/876,089
JDA Software Group, Inc.	System and Method for a Transportation Capacity Exchange	11/872,464 <sup>22</sup>
JDA Software Group, Inc.	Facilitating the Negotiation of Standards for Inter-Enterprise Collaboration Between Trading Partners	2007-0192256 11/697,816
JDA Software Group, Inc.	Generation and Execution of Custom Requests for Quote	2007-0073598 11/604,500
JDA Software Group, Inc.	Target Pricing Method	2007-0143171 11/444,314
JDA Software Group, Inc.	System and Method for Automatic Placement of Products within Shelving Areas using a Planogram with Two-Dimensional Sequencing	2007-0288296 11/429,328
JDA Software Group, Inc.	Custom Application Builder for Supply Chain Management	2006-0206411 11/371,985
JDA Software Group, Inc.	System and Method for Network Visualization and Plan Review	2006-0004617 11/218,876
JDA Software Group, Inc.	Program-based supply chain management	2006-0206406 11/158,371
JDA Software Group, Inc.	Application-driven scheduling system and method	2005-0187805 11/109,346
JDA Software Group, Inc.	Providing visualization of market offers using a multi-dimensional display including geometrically shaped icons	2005-0177498 11/105,109
JDA Software Group, Inc.	System, method, and software for multi-party constrained optimization	2004-0133504 10/739,979
JDA Software Group, Inc.	Managing plan problems across planning cycles	10/165,640
JDA Software Group, Inc.	Determining a combined price adjustment applicable to a base price of an item in a purchase	10/108,939 <sup>23</sup>
JDA Software Group, Inc.	Order acceleration through user document storage and reuse	2004-0158496 10/002,433
JDA Software Group, Inc.	Facilitating the negotiation of standards for inter-enterprise collaboration between trading partners	09/971,718

<sup>22</sup> This patent application could not be verified because it has not yet published.

<sup>23</sup> This patent application could not be verified because it has not yet published.

JDA Software Group, Inc.	Generating an ordering of workflow items given a partial ordering and extension data	09/956,439 <sup>24</sup>
JDA Software Group, Inc.	Information exchange in an electronic trading network	09/944,735 <sup>25</sup>
JDA Software Group, Inc.	System and method for pricing products	09/685,517 <sup>26</sup>
JDA Software Group, Inc.	System for planning new product release	09/688,032 <sup>27</sup>
JDA Software Group, Inc.	Consumer purchasing system	09/684,074 <sup>28</sup>
JDA Software Group, Inc.	Computer-implemented Monitoring and Management of Business Processes and Associated Resources	09/639,491
JDA Software Group, Inc.	System and method for demand planning	62/240,736 <sup>29</sup>
JDA Software Group, Inc.	A system and method of online ratings trends for demand forecast	62/248,563 <sup>30</sup>
JDA Software Group, Inc.	System and method for demand planning	62/287,256 <sup>31</sup>
JDA Software Group, Inc.	Supply chain digital hub of hubs	62/321,123 <sup>32</sup>
JDA Software Group, Inc.	System and method for inventory planning in a supply chain network	62/336,244 <sup>33</sup>
JDA Software Group, Inc.	System and method for demand planning	62/358,292 <sup>34</sup>
JDA Software Group, Inc.	System and method of automotive production planning	62/361,118 <sup>35</sup>

<sup>24</sup> This patent application could not be verified because it has not yet published.

<sup>25</sup> This patent application could not be verified because it has not yet published.

<sup>26</sup> This patent application could not be verified because it has not yet published.

<sup>27</sup> This patent application could not be verified because it has not yet published.

<sup>28</sup> This patent application could not be verified because it has not yet published.

<sup>29</sup> This patent application could not be verified because it has not yet published.

<sup>30</sup> This patent application could not be verified because it has not yet published.

<sup>31</sup> This patent application could not be verified because it has not yet published.

<sup>32</sup> This patent application could not be verified because it has not yet published.

<sup>33</sup> This patent application could not be verified because it has not yet published.

<sup>34</sup> This patent application could not be verified because it has not yet published.

<sup>35</sup> This patent application could not be verified because it has not yet published.