PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5998149

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
TIBCO SOFTWARE INC.	03/04/2020

RECEIVING PARTY DATA

Name:	JPMORGAN CHASE BANK, N.A., AS COLLATERAL AGENT		
Street Address:	10 SOUTH DEARBORN		
City:	CHICAGO		
State/Country:	ILLINOIS		
Postal Code:	60603		

PROPERTY NUMBERS Total: 25

Property Type	Number
Patent Number:	8296654
Patent Number:	8190619
Patent Number:	8566334
Patent Number:	9043344
Application Number:	13957280
Patent Number:	10481919
Patent Number:	10007681
Patent Number:	9952577
Application Number:	14826770
Application Number:	14925901
Application Number:	14925903
Application Number:	15067643
Patent Number:	10467226
Application Number:	15186877
Application Number:	15217907
Patent Number:	10496648
Patent Number:	10540155
Application Number:	15812784
Patent Number:	10560406
Application Number:	16104050

PATENT REEL: 052096 FRAME: 0061

505951444

Property Type	Number
Application Number:	16116771
Application Number:	16596641
Application Number:	16691407
Application Number:	16706326
Application Number:	16738999

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.

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Correspondent Name: CT CORPORATION

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Address Line 2: SUITE 125

Address Line 4: COLUMBUS, OHIO 43219

NAME OF SUBMITTER:	DORIS KA
SIGNATURE:	/Doris Ka/
DATE SIGNED:	03/05/2020

Total Attachments: 8

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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)	2. Name and address of receiving party(ies)			
TIBCO Software Inc.	Name:JPMorgan Chase Bank, N.A., as Collateral Agent			
	Internal Address:			
Additional name(s) of conveying party(ies) attached? Yes				
3. Nature of conveyance/Execution Date(s):	Street Address: 10 South Dearborn			
Execution Date(s) March 4, 2020 Assignment Merger				
Security Agreement Change of Name	City: Chicago			
Joint Research Agreement	State: IL			
Government Interest Assignment	Country: USA Zip: 60603			
Executive Order 9424, Confirmatory License	Zip.			
Other	Additional name(s) & address(es) attached? Yes			
	document serves as an Oath/Declaration (37 CFR 1.63).			
A. Patent Application No.(s)	B. Patent No.(s)			
See attached Schedule 1	See attached Schedule 1			
Additional numbers atta	tached?			
5. Name and address to whom correspondence	6. Total number of applications and patents			
concerning document should be mailed: Name: Doris Ka, Senior Paralegal (IP)	involved: 25			
	7. Total fee (37 CFR 1.21(h) & 3.41) \$			
Internal Address: Cahill Gordon & Reindel LLP	l			
	Authorized to be charged to deposit account			
Street Address: 80 Pine Street	Enclosed			
	None required (government interest not affecting title)			
City: New York	8. Payment Information			
State: NY Zip: 10005				
Phone Number: (212) 701-3569				
Docket Number: 57320.949 (1L)	Deposit Account Number			
Email Address: dka@cahill.com	Authorized UserName			
9. Signature: Cri (G	March 4, 2020			
Signature	Date			
Doris Ka	Total number of pages including cover			
Name of Person Signing Documents to be recorded (including cover sheet	onest, attachments, and documents.			
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450				

PATENT SECURITY AGREEMENT

This Patent Security Agreement, dated as of March 4, 2020 (this "Patent Security Agreement"), is made by each Pledgor that is a signatory hereto, in favor of JPMorgan Chase Bank, N.A., in its capacity as collateral agent for the secured parties (in such capacity, the "Collateral Agent") pursuant to that certain Credit Agreement, dated as of December 5, 2014 (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among TIBCO Software Inc., a Delaware corporation (the "Borrower"), Balboa Intermediate Holdings, LLC, a Delaware limited liability company ("Holdings"), certain subsidiaries of Holdings from time to time party thereto, the lenders from time to time party thereto and the several agents party thereto, including the Collateral Agent.

$\underline{W} \underline{I} \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:

WHEREAS, the Pledgors are party to a Security Agreement of even date with the Credit Agreement (as amended, amended and restated, supplemented, waived or otherwise modified from time to time, the "Security Agreement") in favor of the Collateral Agent pursuant to which the Pledgors 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 Pledgors hereby agree with the Collateral Agent as follows:

- SECTION 1. <u>Defined Terms</u>. Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement, or if not defined therein, in the Credit Agreement.
- SECTION 2. <u>Grant of Security Interest in Patent Collateral</u>. Each Pledgor 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 Pledged Collateral of such Pledgor, in each case excluding Excluded Property (collectively, the "<u>Patent Collateral</u>"):
 - (a) all Patents of such Pledgor, including, without limitation, the United States patents and patent applications listed on <u>Schedule 1</u> attached hereto; and
 - (b) all Proceeds of any and all of the foregoing.

SECTION 3. <u>Security Agreement</u>. 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 Pledgors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. 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.

SECTION 4. Termination. Upon the termination of the Aggregate Commitments and full payment and performance of the Secured Obligations (other than (i) contingent indemnification obligations and unasserted expense reimbursement obligations and (ii) obligations and liabilities under the Secured Hedging Agreements and Secured Cash Management Agreements as to which arrangements to the applicable Cash Management Bank or Hedge Bank shall have been made, survive the termination thereof, and any outstanding Letters of Credit that are cash collateralized in accordance with the Credit Agreement or are backstopped), the security interest granted therein and the security interest granted herein shall automatically and immediately terminate and be deemed automatically and immediately released, and the Collateral Agent shall on the date thereof and, upon any request by any Pledgor, promptly execute, acknowledge, and deliver to the Pledgors an instrument in writing in recordable form releasing the collateral pledge, grant, assignment, lien and security interest in the Patents under this Patent Security Agreement.

SECTION 5. <u>Recordation</u>. Each Pledgor authorizes and requests that the Commissioner for Patents and any other applicable government officer record this Patent Security Agreement.

SECTION 6. <u>Counterparts</u>. 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 counterpart of this Patent Security Agreement by facsimile or other electronic means shall be effective as delivery of a manually executed counterpart of this Patent Security Agreement.

SECTION 7. Governing Law. This Patent Security Agreement and the transactions contemplated hereby, and all disputes between the parties under or relating to this Patent Security Agreement or the facts or circumstances leading to its execution, whether in contract, tort or otherwise, shall be construed in accordance with and governed by the laws (including statutes of limitation) of the State of New York, without regard to conflicts of law principles that would require the application of the laws of another jurisdiction.

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IN WITNESS WHEREOF, each Pledgor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set above.

PLEDGOR(S):

TIBCO SOFTWARE INC.,

a Delaware corporation

By: // // Name: Thomas Berquist

Title: Chief Fjannial Officer

[TIBCO - Signature Page to Patent Security Agreement (1L)]

Accepted and Agreed:

JPMORGAN CHASE BANK, N.A.,

as Collateral Agent____

Ву:

Name: Matthew Cheung ()
Title: Vice President

SCHEDULE 1 to PATENT SECURITY AGREEMENT

<u>UNITED STATES PATENTS AND PATENT APPLICATIONS</u>

Assignee	Patent Title	Serial No.	Filing Date	Patent No.	Issue Date
TIBCO Software Inc.	Automatic guide for data analysis	11173991	06/30/2005	8296654	10/23/2012
TIBCO Software Inc.	Multi-source data visualization system	11824471	06/29/2007	8190619	05/29/2012
TIBCO Software Inc.	Data visualization system with axis binding	11824502	06/29/2007	8566334	10/22/2013
TIBCO Software Inc.	Data mining and model generation using an indatabase analytic flow generator	13357265	01/24/2012	9043344	05/26/2015
TIBCO Software Inc.	Systems and methods for analysis of data at disparate data sources	13957280	08/01/2013		
TIBCO Software Inc.	Automatic Optimization of Continuous Processes	14665292	03/23/2015	10481919	11/19/2019
TIBCO Software Inc.	Adaptive Sampling via Adaptive Optimal Experimental Designs to Extract Maximum Information from Large Data Repositories	14666918	03/24/2015	10007681	06/26/2018
TIBCO Software Inc.	Graph Theory and Network Analytics and Diagnostics for Process Optimization in Manufacturing	14690600	04/20/2015	9952577	04/24/2018

			Filing	Patent	
Assignee	Patent Title	Serial No.	Date	No.	Issue Date
TIBCO Software	Method for	14826770	08/14/2015		
Inc.	Performing In-				
	Database				
	Distributed				
	Advanced				
	Predictive				
	Analytics				
	Modeling via				
	Common Queries				
TIBCO Software	Context aware	14925901	10/28/2015		
Inc.	recommendation				
	of analytic				
	components				
TIBCO Software	Time-based	14925903	10/28/2015		
Inc.	aggregation to				
	feed a rete engine				
TIBCO Software	Auto Query	15067643	03/11/2016		
Inc.	Construction for				
	In-Database				
	Predictive				
	Analytics				
TIBCO Software	Method for in-	15139672	04/27/2016	10467226	11/05/2019
Inc.	database feature				
	selection in high-				
	dimensional inputs				
TIBCO Software	Detecting	15186877	06/20/2016		
Inc.	important				
	variables and their				
	interactions in big				
	data				
TIBCO Software	Parameter driven	15217907	07/22/2016		
Inc.	execution of				
	advanced analytic				
	workflows				
TIBCO Software	Systems and	15427818	02/08/2017	10496648	12/03/2019
Inc.	methods for				
	searching multiple				
	related tables				
TIBCO Software	Platform-agnostic	15674861	08/11/2017	10540155	01/21/2020
Inc.	predictive models				
	based on database				
	management				
	system instructions				

			Filing	Patent	
Assignee	Patent Title	Serial No.	Date	No.	Issue Date
TIBCO Software Inc.	Adaptive page replacement	15812784	11/14/2017		
TIBCO Software Inc.	Compression of message information transmitted over a network	15942050	03/30/2018	10560406	02/11/2020
TIBCO Software Inc.	An interpreter for interpreting a data model algorithm and creating a data shema	16104050	08/18/2018		
TIBCO Software Inc.	System and method for managing tasks and task workload items between address spaces and logical partitions	16116771	08/29/2018		
TIBCO Software Inc.	System for efficient information extraction from streaming data via experimental designs	16596641	10/08/2019		
TIBCO Software Inc.	Using a b-tree to store graph information in a database	16691407	11/21/2019		
TIBCO Software Inc.	Execution manager for binary objects operating across private address spaces	16706326	12/06/2019		
TIBCO Software Inc.	A system for rapid interactive exploration of big data	16738999	01/09/2020		

PATENT REEL: 052096 FRAME: 0070

RECORDED: 03/05/2020