

## TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

ETAS ID: TM489906

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT		
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST		
<b>CONVEYING PARTY DATA</b>			
<b>Name</b>	<b>Formerly</b>	<b>Execution Date</b>	<b>Entity Type</b>
PTC INC.		09/13/2018	Corporation: MASSACHUSETTS
<b>RECEIVING PARTY DATA</b>			
<b>Name:</b>	JPMorgan Chase Bank, N.A., as Administrative 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		
<b>Entity Type:</b>	national association: UNITED STATES		
<b>PROPERTY NUMBERS Total: 34</b>			
<b>Property Type</b>	<b>Number</b>	<b>Word Mark</b>	
<b>Registration Number:</b>	2303220	ARBORTEXT	
<b>Registration Number:</b>	2698963	BEHAVIORAL MODELING	
<b>Registration Number:</b>	3223639	CADD5	
<b>Registration Number:</b>	4176369	CREO	
<b>Registration Number:</b>	4106496	ELEMENTS/DIRECT	
<b>Registration Number:</b>	3797927	FLEXPLM	
<b>Registration Number:</b>	2783114	GRANITE	
<b>Registration Number:</b>	4468878	ISODRAW	
<b>Registration Number:</b>	4532128	ISOVIEW	
<b>Registration Number:</b>	4831805	LIVEWORX	
<b>Registration Number:</b>	1457219	MATHCAD	
<b>Registration Number:</b>	3998319	MATHCAD PRIME	
<b>Registration Number:</b>	1600568	MECHANICA	
<b>Registration Number:</b>	1764169	MKS TOOLKIT	
<b>Registration Number:</b>	3809559	OBJECTADA	
<b>Registration Number:</b>	5259396	PD PTC	
<b>Registration Number:</b>	3818894	PERC	
<b>Registration Number:</b>	3900992	PERC ULTRA	
<b>Registration Number:</b>	4339939	PRODUCT & SERVICE ADVANTAGE	
<b>TRADEMARK</b>			

CH \$865.00 2303220

Property Type	Number	Word Mark
Registration Number:	2601910	PTC
Registration Number:	2356250	PTC
Registration Number:	4304486	SERVICE KNOWLEDGE
Registration Number:	4476311	SERVICE LIFECYCLE MANAGEMENT
Registration Number:	3135200	SERVIGISTICS
Registration Number:	4720929	SMART TERRAIN
Registration Number:	4109846	THINGWORX
Registration Number:	4708404	THINGWORX
Registration Number:	4918974	UNITE
Registration Number:	4258880	VUFORIA
Registration Number:	5114420	VUFORIA
Registration Number:	5454015	VUMARK
Registration Number:	2267669	WINDCHILL
Registration Number:	4726972	WINDCHILL
Registration Number:	3521064	WINDCHILL MPMLINK

**CORRESPONDENCE DATA**

**Fax Number:** 3129939767  
*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:** 3129932647  
**Email:** zeynep.gieseke@lw.com  
**Correspondent Name:** Zeynep Gieseke  
**Address Line 1:** 330 North Wabash Avenue, Suite 2800  
**Address Line 2:** Latham & Watkins LLP  
**Address Line 4:** Chicago, ILLINOIS 60611

<b>ATTORNEY DOCKET NUMBER:</b>	049067-0098
<b>NAME OF SUBMITTER:</b>	Zeynep Gieseke
<b>SIGNATURE:</b>	/zg/
<b>DATE SIGNED:</b>	09/13/2018

**Total Attachments: 6**  
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**SUPPLEMENTAL CONFIRMATORY GRANT OF SECURITY INTEREST  
IN UNITED STATES TRADEMARKS**

THIS SUPPLEMENTAL CONFIRMATORY GRANT OF SECURITY INTEREST IN UNITED STATES TRADEMARKS (the "Confirmatory Grant") is made effective as of September 13, 2018 by and from PTC Inc., a Massachusetts corporation (the "Grantor"), to and in favor of JPMORGAN CHASE BANK, N.A., (the "Grantee") for itself and as Administrative Agent for the Secured Parties (as defined in the Credit Agreement referenced below).

WHEREAS, Grantor, as a Borrower, the Lenders, the Grantee, and the other parties thereto have entered into a Second Amended and Restated Credit Agreement dated as of September 13, 2018 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement").

WHEREAS, the Grantor and the other Loan Parties have entered into an Amended and Restated Security Agreement dated as of September 13, 2018 (as may be amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement").

WHEREAS, the Grantor owns the trademarks (the "Trademarks") listed on Exhibit A attached hereto, which Trademarks are pending or registered with the United States Patent and Trademark Office.

WHEREAS, this Confirmatory Grant has been granted in conjunction with the security interest granted to the Grantee under the Security Agreement. The rights and remedies of the Grantee with respect to the security interest granted herein are without prejudice to and are in addition to those set forth in the Security Agreement and the other Loan Documents, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Confirmatory Grant are deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall govern.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is hereby agreed that:

1) Definitions. All capitalized terms not defined herein shall have the respective meaning given to them in the Credit Agreement.

2) The Security Interest.

(a) This Confirmatory Grant is made to secure the satisfactory performance and payment of all the Secured Obligations. Upon the payment in full of all Secured Obligations (other than contingent indemnification obligations), the Grantee shall promptly, upon such satisfaction, execute, acknowledge, and deliver to the Grantor all reasonably requested instruments in writing releasing the security interest in the Trademarks acquired under this Confirmatory Grant.

(b) The Grantor hereby grants to the Grantee a security interest in (1) all of the Grantor's right, title and interest in and to the Trademarks now owned or from time to time after the date hereof owned or acquired by the Grantor, together with (2) all proceeds and products of the Trademarks, (3) the goodwill associated with such Trademarks, and (4) all causes of action arising prior to or after the date hereof for infringement of the Trademarks or unfair competition regarding the same.


3) Counterparts. This Confirmatory Grant may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Signature pages may be detached from multiple separate counterparts and attached to a single counterpart.

Governing Law. This Confirmatory Grant and the rights and obligations of the parties hereto shall be governed by, and construed and interpreted in accordance with, the law of the State of New York.

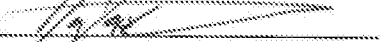
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IN WITNESS WHEREOF, the Grantor has executed this Confirmatory Grant effective as of the date first written above.

PTC INC.,  
as Grantor

By:   
Name: Stephen G. Bouchard  
Title: Treasurer

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

By:   
Name: Douglas Panchal  
Title: Executive Director

Signature Page to  
Supplemental Confirmatory Grant of Security Interest in United States Trademarks

**TRADEMARK**  
**REEL: 006437 FRAME: 0360**

SUPPLEMENTAL CONFIRMATORY GRANT OF SECURITY INTEREST  
IN UNITED STATES TRADEMARKS  
Exhibit A - SCHEDULE OF TRADEMARKS

<b>REGISTERED TRADEMARKS U.S.</b>				
(*PTC Inc. is the current owner of each Trademark via the acquisition by or merger of the owner or record with and into PTC Inc.)				
Mark	Registration Number	Registration Date	Country Name	Record Owner*
ARBORTEXT	2303220	12/28/1999	United States	PTC Inc.
BEHAVIORAL MODELING	2698963	3/18/2003	United States	PTC Inc.
CADDS	3223639	4/3/2007	United States	PTC Inc.
CREO	4176369	7/17/2012	United States	PTC Inc.
ELEMENTS/DIRECT	4106496	2/28/2012	United States	PTC Inc.
FLEXPLM	3797927	6/8/2010	United States	PTC Inc.
GRANITE	2783114	11/11/2003	United States	PTC Inc.
ISODRAW	4468878	1/21/2014	United States	PTC Inc.
ISOVIEW	4532128	5/20/2014	United States	PTC Inc.
LIVEWORX	4831805	10/13/2015	United States	PTC Inc.
MATHCAD	1457219	9/15/1987	United States	PTC Inc.
MATHCAD PRIME	3998319	7/19/2011	United States	PTC Inc.
MECHANICA	1600568	6/12/1990	United States	PTC Inc.
MKS TOOLKIT	1764169	4/13/1993	United States	PTC Inc.
OBJECTADA	3809559	6/29/2010	United States	PTC Inc.
PD PTC and Design	5259396	8/8/2017	United States	PTC Inc.
PD and Design	84833	10/3/2017	United States (Massachusetts)	PTC Inc.
PD and Design	84834	10/3/2017	United States (Massachusetts)	PTC Inc.
PERC	3818894	7/13/2010	United States	PTC Inc.
PERC ULTRA	3900992	01/04/2011	United States	PTC Inc.
PRODUCT & SERVICE ADVANTAGE	4339939	5/21/2013	United States	PTC Inc.
PTC	2601910	7/30/2002	United States	PTC Inc.
PTC	2356250	6/6/2000	United States	PTC Inc.
SERVICE KNOWLEDGE	4304486	3/19/2013	United States	PTC Inc.
SERVICE LIFECYCLE MANAGEMENT	4476311	1/28/2014	United States	PTC Inc.
SERVIGISTICS	3135200	8/29/2006	United States	PTC Inc.
SMART TERRAIN	4720929	4/14/2015	United States	PTC Inc.
THINGWORX	4109846	3/6/2012	United States	PTC Inc.
THINGWORX	4708404	3/24/2015	United States	PTC Inc.

UNITE	4918974	3/15/2016	United States	PTC Inc.
VUFORIA	4258880	12/11/2012	United States	PTC Inc.
VUFORIA	5114420	05/24/2016	United States	PTC Inc.
VUMARK	5454015	04/24/2018	United States	PTC Inc.
WINDCHILL	2267669	8/3/1999	United States	PTC Inc.
WINDCHILL	4726972	4/28/2015	United States	PTC Inc.
WINDCHILL MPMLINK	3521064	10/21/2008	United States	PTC Inc.
<b>TRADEMARK APPLICATIONS U.S.</b>				
<b>Mark</b>	<b>Serial Number</b>	<b>Application Date</b>	<b>Country Name</b>	<b>Record Owner</b>
PP and Design	87/062459	6/7/2016	United States	PTC Inc.