PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT8016632

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	PARTIAL ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
DIRTT ENVIRONMENTAL SOLUTIONS LTD.	05/09/2023

RECEIVING PARTY DATA

Name:	ARMSTRONG WORLD INDUSTRIES, INC.
Street Address:	2500 COLUMBIA AVE.
City:	LANCASTER
State/Country:	PENNSYLVANIA
Postal Code:	17603

PROPERTY NUMBERS Total: 27

Property Type	Number
Application Number:	17423227
Application Number:	17602519
Application Number:	17757354
Application Number:	17650378
Patent Number:	7249005
Patent Number:	7277830
Patent Number:	7908296
Patent Number:	8510672
Patent Number:	8751950
Patent Number:	8762877
Patent Number:	8762941
Patent Number:	9189571
Patent Number:	9245064
Patent Number:	9245381
Patent Number:	9355197
Patent Number:	9471719
Patent Number:	9519407
Patent Number:	9536340
Patent Number:	9619920
Patent Number:	9958858

PATENT REEL: 064040 FRAME: 0503

507969494

Property Type	Number
Patent Number:	10289758
Patent Number:	10467814
Patent Number:	10699484
Patent Number:	10783284
Patent Number:	10922450
Patent Number:	11270514
Patent Number:	11531791

CORRESPONDENCE DATA

Fax Number: (416)863-2653

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: BLAKE, CASSELS & GRAYDON LLP - C. HUNTER

Address Line 1: 199 BAY STREET

Address Line 2: SUITE 4000, COMMERCE COURT WEST

Address Line 4: TORONTO, CANADA M5L 1A9

ATTORNEY DOCKET NUMBER:	30522/00001
NAME OF SUBMITTER:	JUDITH MARTIN
SIGNATURE:	/Judith Martin/
DATE SIGNED:	06/20/2023

Total Attachments: 10

source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page1.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page2.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page3.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page4.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page5.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page6.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page7.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page8.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page9.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page9.tif source=Partial-Patent-Assignment_Dirtt-to-Armstrong_30522-01#page10.tif

PARTIAL PATENT ASSIGNMENT AGREEMENT

This PARTIAL PATENT ASSIGNMENT AGREEMENT (this "Assignment") is made and entered into as of May 9, 2023 (the "Effective Date"), by and between DIRTT Environmental Solutions Ltd., an Alberta (Canada) corporation with offices at 7303-30 Street S.E., Calgary, Alberta, Canada T2C 1N6 ("Assignor"), and Armstrong World Industries, Inc. with offices at 2500 Columbia Ave., Lancaster, Pennsylvania, USA 17603 ("Assignee"). Assignor and Assignee are sometimes referred to in this Assignment individually as a "Party" and together as the "Parties".

WHEREAS, Assignor and Assignee have entered into that certain Co-Ownership Agreement, dated as of the Effective Date, pursuant to which Assignor has agreed to sell, and Assignee has agreed to purchase, an undivided fifty percent (50%) ownership interest in all rights, title and interests in certain intellectual property rights, including, without limitation, the patents and patent applications set forth on Schedule A, as well as all corresponding foreign patent applications, all divisional, continuation, continuation-in-part, reissue, reexamination, and any additional applications which claim priority to the applications and patents set forth on Schedule A and all patents or comparable rights issuing thereon in the United States and in all foreign countries, together with all right(s) of priority under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements or treaties of like purposes (the "ICE Patents").

NOW, THEREFORE, in consideration of the mutual covenants, terms and conditions set forth in this Assignment, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

- 1. <u>Definitions</u>. Capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Co-Ownership Agreement:
- 2. Partial Assignment. Effective as of the Effective Date, Assignor hereby absolutely and unconditionally assigns, transfers, sells, conveys, grants and delivers unto Assignee, and Assignee hereby accepts and assumes from Assignor, an undivided fifty percent (50%) interest in Assignor's entire right, title and interest and good and marketable title in and to the ICE Patents, including equal undivided rights with Assignor of action, both at law and in equity with respect thereto, including the equal right to sue, settle any claims, and collect damages for any past, present, or future infringement or misappropriation of the ICE Patents, the same to be held and enjoyed by Assignor and Assignee, its and their successors and assigns. For the avoidance of doubt, nothing in this Assignment shall be interpreted to establish an obligation of accounting of either Party to the other Party with respect to any proceeds, including any profits, generated from such Party's exploitation of its interest in the ICE Patents, whether such proceeds are generated from the Party's own use, licensing, or transfer of its interest in the ICE Patents. The Parties' contractual rights and responsibilities to each other with regard to their co-ownership and management of the ICE Patents are addressed in the Co-Ownership Agreement.
- 3. <u>Further Actions</u>. The Parties shall cooperate with each other and shall perform all actions that are necessary or appropriate for implementing the intent of this Assignment, including:

- (a) signing, executing, certifying to, verifying, acknowledging, delivering, accepting, filing, and recording any and all instruments and other documents with the appropriate authorities in a timely manner; (b) taking, or causing to be taken, any and all such action that is advisable or appropriate in order to effect the purposes of this Assignment; and (c) executing, and causing its agents and contractors to execute, all lawful instruments reasonably requested, and otherwise providing such reasonable assistance as may be requested, to obtain and enforce the partial assignment of legal title to, the waiver of moral rights in, and legal protection for, the ICE Patents. In the event Assignee is unable for any reason, after reasonable effort, to secure any Assignor's signature on any document needed in connection with the actions specified in this Section 3, Assignor hereby irrevocably designates and appoints Assignee and its duly authorized officers and agents as Assignor's agent and attorney in fact, which appointment is coupled with an interest, to act for and in Assignor's behalf to execute, verify and file any such documents and to do all other lawfully permitted acts to further the purposes of this Section 3 with the same legal force and effect as if executed by Assignor.
- 4. Further Action for ICE Patents Not Assigned. If, following the Effective Date, any Party becomes aware of the existence of any patent or patent application that is related to or necessary for the use of the Applicable ICE Code or that is otherwise within the scope of the Co-Ownership Agreement but that is not set out in Schedule A, including without limitation, any foreign patent application, or any divisional, continuation, continuation-in-part, reissue, reexamination, and application which claims priority to the applications and patents set forth on Schedule A or the existence of any patent right issuing thereon in the United States or in any foreign countries, or from with any right(s) of priority under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreements or treaties of like purposes the foregoing of which is owned by the Assignor (each, an "Intended ICE Patent"), the Party becoming aware shall promptly notify the other Party in writing and the Parties shall cooperate as soon as reasonably practicable to ensure that an undivided fifty percent (50%) ownership interest in all rights, title and interests in such Intended ICE Patent is transferred from Assignor to Assignee, without the payment of any further consideration.
- 5. No Third Party Beneficiaries. This Assignment is for the sole benefit of the Parties, and nothing in this Assignment, express or implied, is intended to or shall confer upon any other Person any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Assignment.
- 6. Binding Effect; Assignment. This Assignment shall enure to the benefit of, and be binding on, the Parties and their respective successors and permitted assigns. Neither Party may assign or transfer, whether absolutely, by way of security or otherwise, all or any part of its respective rights or obligations under this Assignment without the prior written consent of the other Party. For the avoidance of doubt, this paragraph shall not be interpreted to prevent or restrict the alienability or free disposition of either Party's property interest in and to the ICE Patents.
- 7. Governing Law and Venue. This Assignment, and all claims or causes of action (whether in contract, tort or statute) that may be based upon, arise out of or relate to this Assignment, or the negotiation, execution or performance of this Assignment, shall be governed

by and in accordance with the laws of the State of Delaware, United States of America, including its statute of limitations, without regard to its conflict of laws rules. Both Parties agree that the Delaware Court of Chancery and any state appellate court therefrom within Delaware (or, if the Delaware Court of Chancery declines to accept jurisdiction over a particular matter, any state or federal court within Delaware) shall be the sole and exclusive venue for any suit, actions or proceedings arising from or relating to this Assignment, and they hereby irrevocably consent to the jurisdiction of such courts. All proceedings shall be conducted in the English language. The U.N. Convention on International Sales of Goods shall not apply to this Assignment.

- 8. <u>Severability</u>. Any provision of this Assignment which is prohibited or unenforceable in any jurisdiction will, as to that jurisdiction, be ineffective to the extent of such prohibition or unenforceability and will be severed from the balance of this Assignment, all without affecting the remaining provisions of this Assignment or affecting the validity or enforceability of such provision in any other jurisdiction.
- 9. <u>Counterparts</u>. This Assignment may be executed and delivered electronically and in counterparts, each of which shall be deemed to be an original and both of which taken together shall be deemed to constitute one and the same instrument.

* * *

IN WITNESS WHEREOF, the Parties have caused this Assignment to be executed as of the Effective Date.

INC.

ARMSTRONG WORLD INDUSTRIES, DIRTT ENVIRONMENTAL SOLUTIONS

NAME: Jill A. Crager

NAME: Benjamin Urban

TITLE: SVP Sales Operations

TITLE: Chief Executive Officer

SCHEDULE A ICE PATENTS

Title	Country	Type	Status	Patent No.	Issue Date	Serial No.	Filing or Deposit Date	Parent Application
Capturing a user's intent in design	US	Non-Prov	Issued	8,751,950	Jun. 10, 2014	11/204,421	Aug 16, 2005	60/602,233
iofiware , ,,	PCT	Non-Prov	Nationalized / Expired			PCT/18/2005/003 248	Aug 17, 2005	60/602,233
, s	CA	Non-Prov	Issued	2,577,199	Dec. 22, 2013	2577199	Feb 15, 2007	PCT/IB2005/003248
, »	US	Non-Prev	lsswed	9,536,349	Jan. 96, 2017	14/032,946	Sep 20, 2013	66/602,233 & 11/204,421
Capturing a User's	US	Non-Prov	Issued	7,277,830	Oct. 92, .	11/204,420	Aug 16, 2005	60/602,233
Design Intent with Resolvable					2007			
Objects (software) ' "	PCT	Non-Prov	Nationalized / Expired			PCT/182005/003 298	Aug 17, 2005	60/692,233
: s	CA	Non-Prov	Issued	2,577,202	Nov. 08. 2011	2577292	Feb 15, 2007	PCT/IB2005/003298
Design software neorporating officient 3-D endering	US	Non-Prov	Issued	7,249,005	Jul. 24, 2007	11/204,419	Aug 16, 2005	69/602,233
software) ' *	PCT	Non-Press	Nationalized (Expired			PCT/IB2005/003 434	Aug 17, 2003	60-602,233
v v	CA	Non-Prov	Issued	2,577,205	Oct. 23, 2012	2577205	Feb 15, 2007	PCT/18/2005/003434
megrating Object-Oriemed Design Software with Record-Bosed	US	Provisional	Converted / Expired			60/774,096	Fab 16, 2006	
CAD Software	US	Non-Prov	Issued	7.908,296	Mar. 15. 2011	11/577,302	Apr 13, 2007	PCT/CA2007/000241
. 0	PCT	Non-Prov	Nationalised / Expired		2011	PCT/CA2007/00 0241	Feb 16, 2007	60/774,096
	CA	Non-Prov	Issued	2,642,553	Apr. 19 2016	2,642,553	Aug 15, 2008	PCT/CA2007/000241
Treation and Modification of	US	Provisional	Converted / Expired			61/028,409	Feb 13, 2008	
Valid Functional Design Layouts (software)								
	US	Non-Prov	Issued	8,762.877	Jun. 24, 2014	12/444,890	Apr 09, 2009	PCT/CA2009/990190
n 8	PCT	Non-Prov	Nationalized / Expired			PCT-C42009-00 0196	Feb 13, 2009	61/028,409
: N	CA	Non-Prov	Issued	2.665.427	Jan. 26, 2016	2665379	Apr 16, 2009	PCT/CA2009/000190

Automated	US	Provisional	Converted 7			613028,399	Feb 13, 2008	
Conversion of CAD Based Blocks o Intelligent Rendered Objects II Object-Oriented Design Software			Expired			V. Ostalas s	, 48 13, 2110	
(0	US	Non-Prov	issued	8,762,941	jun 24,2014	12/444,893	Apr 09, 2009	PCT/CA2909/000183
Rendering and Modifying CAD Design Entities in Object-Oriented Applications	PCT	Non-Prov	Nutionalized / Expired			PCT/CA2009-00 0183	Feb 13, 2009	61/028.399
, "¢"	CA	Non-Prov	lasued	2665637	May. 17,	2,665,637	Apr 16, 2009	PCT/CA2009/000183
; x	CA	Non-Prov	Issued	2923333	2016 Dec. 18. 2018	2923333	Mar 08, 2016	2665637
4niomatically	US	Provisional	Converted?			61/033,716	Mar 11, 2008	
Treating and Modifying and Furniture Layouts in Design Software		5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 -	Expired					
n Design Squwure	US	Non-Prov	Issued	8,510,672	Aug. 13. 2013	12/444,886	Apr 69, 2009	PCT/CA2009/000311
,	US	Non-Prov	Issued	9,519,407	Dec. 13, 2016	13/839,033	Mar 15, 2003	PCT/CA2609/000311
. »	PCT	Non-Prov	Nationalized / Expired		2000	PCT/CA2009-00 0311	Mar 11, 2009	61/035,716
. ,,	CA	Non-Prov	Issued	2,665,379	May. 12, 2015	2665379	Apr 16, 2009	PCT/CA2009/000311
	£b	Non-Prov	Issued	2,252,951	2013 May : 05, 2021	9719352.8	Mar 11, 2009	PCT/CA2609/000311
25	UK	Non-Prov	tssued	2,252,951	May. 05, 2021	9719352.8	Mar 11, 2009	PCT/CA2009/600311
,	FR	Non-Prov	Issued	2,252,951	May, 05, 2021	9719352.8	Mar 11, 2009	PCT/CA2609/000311
s a	DE	Non-Prov	lssued	2,252.951	May, 05, 2021	9719352.8	Mar 11, 2009	PCT/CA2009/000311
	 US					61/264,219	Nov 24, 2009	
Securely Streaming 3D Design Content over Web (software)	VS.	Provisional	Converted / Expired			01:204,218	NOV 24, 29819	
,	US	Non-Prov	issued	9,245,064	Jan. 26, 2016	13/510,912	May 18, 2012	PCT/US10/58092
· w	PCT	Non-Prov	Nationalized / Expired			PCT/US10/3809 2	Nov 24, 2010	61/264,219
	CA	Neas-Prov	Issued	2781638	Jun. 04, 2019	2,781,638	May 23, 2012	PCT/US16/58092
	EP	Non-Prov	Pending			1833972.2	Jun 21, 2012	PCT/US14/58092
Automaied Reconfiguration of in As-built Design in Intelligent Design Software	US	Provisional	Converted (* Expired			61/493,980	Jun 11, 2011	
en	QS ¹	Non-Prov	Issued	9,389,571	Nov. 17.	13/579,261	Aug 15, 2012	PCT/US12/38582

n 42	PCT	Non-Prov	Nationalized / Expired			PCT/US12/3858 2	Jun 11, 2012	61/495,980
	CA	Non-Prov	Issued	2796664	Feb. 12, 2019	2796664	May 18, 2012	PCT/US12/38582
Maine Ladama	1 616	Stan Dani			Oct 18, 2016	16/749 976	850-21 7084	mere is to even
Efficient Lighting Effects in Design	US	Non-Prov	Issued		OR 16, 2010	14/348.879	Mar 31, 2014	PCT/US12/68805
Saftware				9,471,719				
o er	PCT	Non-Prov	Nationalized / Expired			PCT/US12/6880 S	Dec 10, 2012	
8	CA	Non-Prov	fisued	2817507	Aug 63,	2,817,507	May 30, 2013	PCT/US12/68805
· s	EP	Non-Prov	Issued	2929455	2021 Jun 19, 2019	12890137.8	Nov 21, 2014	PCT/US12/68805
	UK		Issued	2929455	Jun 19, 2019	12890137.8	Nov 21, 2014	PCT/US12/68805
	FR		Issued	2929455	Jun 19, 2019	12890137.8	Nov 21, 2014	PCT/US12/68805
	DE		Issued	2929455	Jun 19, 2019	60 2012 061	Nov 21, 2014	PCT/US12/68805
						312.2		
. o	SO	Non-Prov	Essued	£1291609800S	Sep 10, 2019	112916098008	Nov 23, 2016	PCT/US12/68805
750	1 122	N 20		A + N/2 2020		24410729	0	Derry Deep Dather
Efficient Specular Reflection in Design Software	US	Non-Prov	Essued	9,819,920	Apr 11, 2017	14/110.910	Oct 09, 2013	PCT/US13/24009
v (s	PCT	Non-Prov	Nationalized / Expired			PCT/US13/2400 9	Jan 31, 2013	
· v	CA	Non-Frov	Issued	2817497	May. 25, 2021	2,817,497	May 30, 2013	PCT/US13/24009
8	EP	Non-Prov	Issued	2951785	Dec 11, 2019	13 843 507.1	Jun 62, 2015	PCT/US13/24009
8.	UK	Non-Prov	Issued	2951785	Dec 11, 2019	13 843 507.1	Iun 62, 2015	PCT/US13/24009
×	FR	Non-Prov	Issued	2951785	Dec 11, 2019	13 843 507,1	Jun 02, 2015	PCT/US13/24009
8	90	Non-Prov	Issued	2951785	Dec 11, 2019	13 843 597,1	Jun 02, 2015	PCT/US13/24009
·	SG	Non-Prov	lasued	11201605971W	Nov 17, 2017	11201665971W	Jul 20, 2016	PCT/US13/24009
Software for Visual Distortion Effects in	US	Non-Prov	Issued	9,245,381	Jan 26, 2016	14/111,669	Oct 14, 2013	PCT/US13/24963
Transparent Glass ,, ,,	PCT	Non-Prov	Notionalized (Espired			PC7/US13/2406 3	Jan 31, 2013	
	CA	Non-Prov	Pending			2,817,402	May 30, 2013	PCT/US13/24063
8	EP	Non-Prov	Issued	2951786	Jun 17, 2020	13 873 685.1	Jun 62, 2015	PCT/US13/24063
8	UK	Non-Prov	Issued	2951786	Jun 17, 2020	13 873 685.1	Jun 02, 2015	PCT/US13/24063
N	FR	Non-Prov	Issued	2951786	Jun 17, 2020	13 873 685.1	Jun 02, 2015	PCT/US13/24063
×	06	Non-Prev	Issued	602013070040.0	Jun 17, 2020	13 873 685,1	Jun 62, 2015	PCT/US13/24063
22	SG	Non-Frey	Essued	11201605982W	Feb 19, 2018	11201605982W	Jul 21, 2016	PCT/US13/24063
	30) 10000 NOV		1120x1993792.9x		1 5 2 G C 195 G 7 19 2 . Ve	3W 21, 20(0)	1000303724003
Depth of Field in	PCT	Non-Prov	Nationalized		***************************************	PCT/US13/2319	Jan 23, 2013	
Design Software			(Expired			8		
Depth of Field in Design Software	<i>PCT</i>	Non-Prov		9,355,197	May. 31. 2016		Jan 23, 2013 Oct 22, 2013	PCY/US13/23198

•	EP	Non-Prov	issued	2948929	Nov. 10,	13 872 502.3	Jun 30, 2015	PCT/US13/23198
N .	UK	Non-Prov	Issued	2948929	2021 Nov. 10.	13 872 502.3	Jun 30, 2015	PCT/US13/23198
*	FR	Non-Prov	Issued	2948929	2021 Nov. 18,	13 872 502.3	Jun 30, 2015	PCT/US13/23198
i e	DE	Non-Prov	Issued	2948929	2021 Nov. 10,	602013080019,7	Jan 30, 2015	PCT/US13/23198
: »	SG	Non-Prov	Issued	11201609798X	2021 Jul. 64, 2018	11201609798x	Nov 24, 2016	PCT/US13/23198
·····					·			······
3D Immerzion within Architectural	US	Provizional	Converted / Expired			62/064.136	Oct 15, 2014	
Design Software ' "	PCT	Non-Prov	Nationalized			PCT/US13/0555 87	Oct 14, 2015	62/064.136
e 16	98	Non-Prov	Issued	10,783,284	Sep_22, 2020	15518378	Apr 11, 2017	PCT/US15/055587
Continuation * *	US	Non-Prov	lssued	11,531,791	Dec: 20, 2022	17/026,723	Sep 21, 2020	15/518,378
· •	CA	Non-Prov	fisued	2964514	Jul. 20, 2021	2,964,514	Oct 14, 2015	PCT/US15/055587
* 10	EP	Non-Prov	Pending			15850198.1	May 12, 2017	PCT/US15/055587
8 N	SG	Non-Prov	Issued	11201703011V	Sep. 10, 2019	11201703011V	Oct 14, 2015	PCT/US15/055587

Reality Software in Architectural	US	Provisional	Comerted / - Expired			62/348,716	Jun 10, 2016	
Design ' '	PCT	Non-Prov	Nationalized			PCT/US17/3683	Jun 09, 2017	62/348,716
: »	US	Non-Prov	Issued	10,467,814	Nov. 05, 2019	15/741,488	Jan 02, 2018	PCT/US17/36838
C 00	CA	Non-Prov	Pending		*****	2997021	Jun 69, 2017	PCT/US17/36838
	£U	Non-Prov	Pending			17811115.9	Feb 02, 2018	PCT/US17/36838
7 K	SG	Non-Prov	Issued	11201800366S	Sep. 06, 2023	11201800366S	Jun 09, 2017	PCT/US17/36838
Combining Mixed Reality with CAD	US	Provisional	Comeried / - Expired			62/348,721	Jun 10, 2016	
Models Pollow-up Provisional App " "	US	Provisional	Converted : Expired			62/378,592	Aug 23, 2016	
, ,;	PCT	Non-Prov	Nationalized			PCT/US17/3687 1	Jun 09, 2017	62/348,721 62/378,592
Continuation " "	US	Non-Prov	fssued	10,699,484	Jun. 30, 2020	15/741487	Jan 02, 2018	62/348,721 62/378,592
« :•	us	Non-Prov	Issued	11,270.514	Mar. 08, 2022	16/903212	Jun 16, 2020	62/348,721 62/378.592
, ,,	CA	Non-Prov	Pending			3000008	Mar 01, 2018	PCT/US17/36871
,	EU	Non-Prov	Allowed	3,365,874		17811126.6	Feb 28, 2018	PCT/US17/36871
.,	UK	Non-Prov	Allowed	3,365,874		17811126.6	Feb 28, 2018	PCT/US17/36871
	FR	Non-Prov	Allowed	3,365,874		17811126.6	Feb 28, 2018	PCT/US17/36871
· ·	DE	Non-Prov	Allowed	3,365,874		17811126.6	Feb 28, 2018	PCT/US17/36871
Voice	US	Provisional	Converted / Expired			62/864.324	Jun 20, 2019	

Environments							***************************************	
. *	PCT	PCT	Pending			PCT/US2020/03 8433	Jun 18, 2020	
: 8	US	Non-Prov	Pending			17/602,519	Oct 98, 2921	
r N	CA	Non-Prov	Pending			3139465	Nov 24, 2021	
	EP	Non-Prov	Pending			20739515.3	Oct 22, 2021	
	y							
Automated Mosaic Pattern Generator for Architectural Product Manufacture	US	Provisional	Converted (Expired			62/829,547	Apr 04, 2019	
N 8	PCT	PCT	Nationalized			PCT/US202 0/020826	Mar 03, 2020	
, ,,	us	Non-Prov	Pending				Jul 15, 2021	
, ,,	CA	Non-Prov	Pending			CA3132727 A1	Sep 07, 2021	
x o	EP	Non-Prov	Pending				Jul 29, 2021	
	,							
(Actusion Solution Mixed Reality Oxsign Software	US	Provisional	Converted / Expired			62/959,321	Jan 10, 2020	
s s	PCT	PCT	Pending			PCT/IB2021 /050050	Jan 05, 2021	
, v.	US	Non-Prov	Pending				Jun 14, 2022	
v vi	CA	Non-Prov	Pending			3166196 AT	Jun 27, 2022	
4 0	EP	Non-Prov	Dandina.			**************************************	VIII. OF POSSO	
		Nonector	Pending			21738009A .	July 6, 2022	
	US	Provisional	Expired				Feb 11, 2921	
Fransparent, and Opaque Dynamic 3D Objects in Design Software								
Fransparent, and Opaque Dynamic BD Objects in Design Software						63/148,316		
Fransparent, and Opaque Dynamic BD Objects in Design Software	US	Provisional	Expired			63/148,316 17/650,378	Feb 11, 2021	
Transparent, and Opaque Dynamic 3D Objects in Design Software	US US CA	Provisional Non-Prov Non-Prov	Expired Pending Pending			63/148,316 17/650,378 3,148,410	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022	
Fransparent, and Opaque Dynamic BD Objects in Design Software Millwork Summatically Resolving Boundaries	US US	Provisional Non-Prov	Expired Pending			63/148,316 17/650,378	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022	
Fransparent, and Opaque Dynamic BD Objects in Design Software Millwork Automatically Resolving Boundaries (software)	US US CA	Provisional Non-Prov Non-Prov	Expired Pending Pending	19,289,758	May. 14,	63/148,316 17/680,378 3,148,410 PCT/18/14-9010	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022	PCT/IB/I 4/001055
Transparent, and Opaque Dynamic ID Objects in Design Software Millwork Resolving Boundaries Software)	US US CA	Provisional Non-Prov Non-Prov	Expired Pending Pending Nationalized	19,289,758	2019 Dec. 31	63/148,316 17/650,378 3,148,410 PCT/18/14/60/0 33	Feb 11, 2921 Feb 08, 2922 Feb 10, 2922 Mar 24, 2014	PCT/IB/14/001655 PCT/IB/14/001055
Fransparent, and Opaque Dynamic ED Objects in Design Software Millwork Rutomatically Resolving Soundaries (software)	US US CA US	Provisional Non-Prov Non-Prov Non-Prov	Expired Pending Pending Nationalized Essued		2019 Dec. 31, 2019	63/148,316 17/650,378 3,148,410 PCT718/14/0070 35	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022 Mar 24, 2014 Nov 13, 2015	
Fransparent, and Opaque Dynamic BD Objects in Design Software Millwork Automatically Resolving Boundaries (software)	US CA US CA SG	Provisional Non-Prov Non-Prov Non-Prov Non-Prov Non-Prov	Expired Pending Pending Nationalized Issued Issued	2908924	2019 Dec. 31, 2019 Mar. 30,	63/148,316 17/650,378 3,148,410 PCT/18/14/00/0 35 14/891,007 2,908,924 11201606050X	Feb 11, 2921 Feb 08, 2922 Feb 10, 2922 Mar 24, 2014 Nov 13, 2015 Oct 06, 2915 Jul 22, 2016	PCT/IB/14/001055
Fransparent, and Opaque Dynamic BD Objects in Design Software Millwork - Automatically Resolving Boundaries (software) Millwork - Incorporating 3rd Party Features	US CA US CA	Provisional Non-Prov Non-Prov Non-Prov Non-Prov	Expired Pending Pending Nationalized Insued	2908924	2019 Dec. 31, 2019 Mar. 30,	63/148,316 17/650,378 3,148,410 PCT7B/14,0070 35 14/891,007 2,908,924 11201606059X	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022 Mar 24, 2014 Nov 13, 2015 Oct 06, 2015	PCT/IB/14/001055
Fransparent, and Opaque Dynamic BD Objects in Design Software Millwork - Resolving Software) Millwork Millwork Millwork Millwork Millwo	US CA US CA SG	Provisional Non-Prov Non-Prov Non-Prov Non-Prov Non-Prov	Expired Pending Pending Nationalized Issued Issued	2908924	2019 Dec. 31, 2019 Mar. 30, 2020	63/148,316 17/650,378 3,148,410 PCT/18/14,0010 33 14/891,007 2,908,924 11201606050X PCT/US/13/3 9764	Feb 11, 2021 Feb 08, 2022 Feb 10, 2022 Mar 24, 2014 Nov 13, 2015 Oct 06, 2015 Jul 16, 2013	PCT/IB/14/001085 PCT/IB/14/001035
Transparent, and Opaque Dynamic 3D Objects in Design Software * * Millwork - Automatically Resolving Boundaries (software) * * Millwork - Automatically Resolving Boundaries (software)	US CA US CA SG	Provisional Non-Prov Non-Prov Non-Prov Non-Prov Non-Prov	Expired Pending Pending Nationalized Issued Issued Nationalized Nationalized	2908924 11201606050X	2019 Dec. 31, 2019 Mar. 30,	63/148,316 17/650,378 3,148,410 PCT/18/14/00/0 35 14/891,007 2,908,924 11201606050X PCT/US/3/5 0764 2,895,313	Feb 11, 2921 Feb 08, 2922 Feb 10, 2922 Mar 24, 2014 Nov 13, 2015 Oct 06, 2915 Jul 22, 2016	PCT/IB/14/001055

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Millwork - Cube In Cube (software)	PCT	Non-Prov	Notionalized			PCT/I/813/4 3735	May 31, 2013	
6.8	US	Non-Prov	fssued	9,958,858	May 01, 2018	14/115,299	Nov 01, 2013	PCT/US13/43735
W 80	CA	Non-Prov	fasued	2883079	Oct 26, 2021	2,883,079	Feb 25, 2015	PCT/US13/43735
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Custom Timber	US	Provisional	Converted /			62/009.640	Jun 09, 2014	
Frame Software			Expired					
sr e	PCT	Nan-Prov	Nationalized			PCT/USIS/I 1105	Jan 13, 2015	62/009,640
(to MBP)	US	Non-Prov	issued	10,922,450	Feb. 16, 2021	14/915,990	Mar 02, 2016	PCT/US15/11105
	CA	Non-Prov	Pending			2,921,871	Jan 01, 2015	PCT/US15/11105
	80	Non-Prov	Insued	1120160835 7X	Mar 11, 2019	1120160835 7X	Jan 01, 2015	PCT/US15/11105

Notes: PCT (Patent Cooperation Treaty). US (United States), CA (Canada), EP (European Patent Office), EU (European Union), UK (United Kingdom), FR (France), DE (Denmark), SG (Singapore), Nationalized (no data or N/A), Non-Prov (converted provisional, continuation, divisional, PCT, etc.); italies format (inactive case). Status: Allowed, Converted, Dropped, In Process, Issued, Pending, or Nationalized.

PATENT REEL: 064040 FRAME: 0514

RECORDED: 06/20/2023