506639856 04/30/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6686666

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
JIA-TZE HUANG	01/31/2019
JONATHAN JAMES MUIRHEAD	01/31/2019

RECEIVING PARTY DATA

Name:	MENTOR GRAPHICS CORPORATION	
Street Address:	8005 S.W. BOECKMAN RD.	
City:	WILSONVILLE	
State/Country:	OREGON	
Postal Code:	97070	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	17245834

CORRESPONDENCE DATA

Fax Number:

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: 407-257-5545

Email: ipdadmin.us@siemens.com

Correspondent Name: SIEMENS CORPORATION IP DEPT - MAIL CODE

Address Line 1: 3850 QUADRANGLE BLVD
Address Line 4: ORLANDO, FLORIDA 32817

ATTORNEY DOCKET NUMBER:	2018P02144US02
NAME OF SUBMITTER:	TRACEY A. DANIEL
SIGNATURE:	/Tracey A. Daniel/
DATE SIGNED:	04/30/2021

Total Attachments: 3

source=Assignment_Mentor#page1.tif source=Assignment_Mentor#page2.tif source=Assignment_Mentor#page3.tif

PATENT 506639856 REEL: 056100 FRAME: 0410

Docket No.: 2018P02144US01

Page 1 of 3

ASSIGNMENT

For good and valuable consideration, I (We),

Jia-Tze Huang, residing at 15270 SW Emerald, Beaverton, OR 97007, US, citizen of TW

Jonathan James Muirhead, residing at 17043 SW Rivendell Drive, Portland, 97224, citizen of US

hereafter individually or collectively referred to as "Assignor(s)";

Hereby, (I) acknowledge having previously assigned, sold and transferred to **Mentor Graphics Corporation**, a corporation organized and existing under the laws of the State of OREGON, having its principal place of business at 8005 S.W. Boeckman Rd., Wilsonville, OR, 97070, hereinafter "Assignee", its successors, assigns and legal representatives, or to a predecessor of Assignee, pursuant to (A)(i) the laws of UNITED STATES OF AMERICA or (ii) a Patent & Secrecy Agreement or similar legal document such as, without limitation, an employee agreement executed at the time of entering into the employment of, or executed as a condition of continuing employment with, the Assignee or a predecessor of the Assignee, the entire right, including any and all priority rights, title and interest, in and for the United States and all foreign countries, in and to any and all inventions or improvements which are disclosed in an invention disclosure and/or in the below-identified documents currently filed with this Assignment, already filed or granted for Letters Patent (in which case, any provision of the subject Assignment that is in conflict with or is in addition to any provision in the prior agreement(s) or assignment(s) then this Assignment shall govern, take precedence, and be of legal effect), or

(B)(i) to the extent such laws of UNITED STATES OF AMERICA or such Patent & Secrecy Agreement or similar legal document failed or fails, in whole or part, to have assigned, sold or transferred the entire right (including priority rights), title and interest, in and for the United States and all foreign countries, in and to all inventions or improvements which are disclosed in the below-identified application(s) or pending application(s) or granted Letters Patent, or (ii) if no such agreement(s) exist assigning, selling or transferring any such right (including priority rights), title or interest; then for good and valuable consideration, Assignor(s) now and hereby, effective Nunc Pro Tunc on the filing date of the below identified patent application(s), pending patent application(s) or granted Letter Patent(s), assign, sell and transfer(s) to Assignee, its successors, assigns and legal representatives, the entire right, (including all priority rights), title and interest in and for the United States and all foreign countries, in and to any and all inventions and/or improvements which are disclosed in the following identified; patent application(s), pending patent application(s) or granted Letter Patent(s)

IDNR: 1930 / 21.05.2015

PATENT REEL: 056100 FRAME: 0411

Docket No.: 2018P02144US01

Page 2 of 3

Patent Application Title:

PUZZLE-BASED

PATTERN **ANALYSIS**

AND

CLASSIFICATION Filing Date: 12/12/2017

Filing Number: 62/597,848

Internal Case Number(s): 2018P02144US

Patent Application Title:

PUZZLE-BASED

PATTERN

ANALYSIS

AND

CLASSIFICATION

Filing Date: 11 Dec 2018 Filing Number: 16/216,127

Internal Case Number(s): 2018P02144US01

and in and to said application(s) or granted patents and all applications claiming priority to said application or granted patent, including, without limitation, and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of the inventions and/or improvements; and in and to all original and reissued patents which have been or shall be filed in the United States and all foreign countries on the inventions and/or improvements;

- (II) Agree that said Assignee may apply for and receive Letters Patent for said inventions and/or improvements in its own name; and that, when requested, without charge to but at the expense of said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions and/or improvements; execute all rightful oaths, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and legal representatives, all facts known to the undersigned relating to said inventions and/or improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or legal representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and/or improvements and for vesting title to said inventions and or improvements and all applications for patents and all patents on said inventions and/or improvements, in said Assignee, its successors, assigns and legal representatives; and
- (III) Covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Witness Signature

Sninivas Velivala printed name

Docket No.: 2018P02144US01

Page 3 of 3

V-Servica	>	and Mus
Witness Signa	ature	Jonathan James Muirhead
<u>Sคมหน่ Vd</u> printed name	S Velivala.	1/31/2019 Date
Companies Re Mentor Graphic Signature(s):	epresentative(s) ss Corporation Shahnon We	tzel
Name(s):	Shannon Wetzel	
Title:	Deputy General Counsel	
Date:	2/6/2019	
,	XY 6 Feb	

PATENT REEL: 056100 FRAME: 0413

RECORDED: 04/30/2021