506782351 07/23/2021

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WILLIAM OWEN BRIMIJOIN II	07/22/2021
SAMUEL CLAPP	07/22/2021
PETER DODDS	07/23/2021
NAVA K. BALSAM	07/22/2021
TOMASZ RUDZKI	07/23/2021
RYAN ROHRER	07/22/2021
KEVIN SCHEUMANN	07/22/2021
MICHAELA WARNECKE	07/23/2021

RECEIVING PARTY DATA

Name:	FACEBOOK TECHNOLOGIES, LLC	
Street Address:	1601 WILLOW ROAD	
City:	MENLO PARK	
State/Country:	CALIFORNIA	
Postal Code:	94025	

PROPERTY NUMBERS Total: 1

Property Type	Number		
Application Number:	17379730		

CORRESPONDENCE DATA

Fax Number: (650)938-5200

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: 4158752023

Email: mnascimento@fenwick.com
Correspondent Name: MONICA NASCIMENTO
Address Line 1: FENWICK & WEST LLP
Address Line 2: 801 CALIFORNIA STREET

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

ATTORNEY DOCKET NUMBER: 31718-48792/US

NAME OF SUBMITTER: MONICA NASCIMENTO

SIGNATURE: /Monica Nascimento/

506782351 PATENT REEL: 056961 FRAME: 0001

DATE SIGNED:	07/23/2021	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 3		
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PATENT REEL: 056961 FRAME: 0002

COMBINED ASSIGNMENT/DECLARATION (37 CFR 1.63)

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to **Facebook Technologies**, **LLC**, a Delaware limited liability company, having a place of business at 1601 Willow Road, Menlo Park, California 94025 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional application filed under 35 U.S.C. § 111(b), non-provisional application filed under 35 U.S.C. § 111(a), international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):

Application No. 17/379,730, entitled "DYNAMIC TIME AND LEVEL DIFFERENCE RENDERING FOR AUDIO SPATIALIZATION" filed on July 19, 2021, which claims priority from provisional application, filed on July 20, 2020, now bearing U.S. Application No. 63/054,055 and provisional application, filed on April 19, 2021, now bearing U.S. Application No. 63/176,595.

- 2. The entire worldwide right, title, and interest in and to:
- (a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto which have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) which may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

PATENT REEL: 056961 FRAME: 0003 Title: DYNAMIC TIME AND LEVEL DIFFERENCE RENDERING FOR AUDIO

SPATIALIZATION

Date Filed: **July 19, 2021** Application No.: **17/379,730**

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

By signing below, INVENTOR further attests to the following:

- The APPLICATION was made or authorized to be made by INVENTOR.
- INVENTOR believes that INVENTOR is the original inventor or an original joint inventor of a claimed invention in the APPLICATION.
- INVENTOR acknowledges the duty to disclose to the United States Patent and Trademark Office all information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56, which for a continuation-in-part includes information known to INVENTOR to be material to patentability as defined in 37 CFR § 1.56 that became available between the filing date of the prior patent application and the National or PCT filing date of the continuation-in-part application.

INVENTOR hereby acknowledges that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Name and Signature	Date of Signature
_I W. Owen Brimijoin	Jul 22, 2021
William Owen Brimijoin II	
Name and Signature	Date of Signature
Samuel Clapp	Jul 22, 2021
Samuel Clapp	
Name and Signature	Date of Signature
1824 DU	Jul 23, 2021
Peter Dodds	
Name and Signature	Date of Signature
Nava Balsam	Jul 22, 2021
Nava K. Balsam	

PATENT REEL: 056961 FRAME: 0004

DYNAMIC TIME AND LEVEL DIFFERENCE RENDERING FOR AUDIO Title:

SPATIALIZATION

Date Filed: July 19, 2021 17/379,730 Application No.:

Name and Signature		Date of Signature
, Tomasz Rudzki	/	Jul 23, 2021
Tomasz Rudzki		
Name and Signature		Date of Signature
, Ryan Rohrer	/	Jul 22, 2021
Ryan Rohrer		
Name and Signature		Date of Signature
Kevin Scheumann	/	Jul 22, 2021
Kevin Scheumann		
Name and Signature		Date of Signature
/ M.Oh		Jul 23, 2021
Michaela Warnecke		

Attorney Docket No.: 31718-48792/US 3 **PATENT REEL: 056961 FRAME: 0005**

RECORDED: 07/23/2021