

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

Assignment ID: PATI91236

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Peter Graham Craven	07/26/2019
<b>RECEIVING PARTY DATA</b>	
<b>Company Name:</b>	MQA Limited
<b>Street Address:</b>	The Broadgate Tower, Third floor
<b>Internal Address:</b>	20 Primrose Street
<b>City:</b>	London
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	EC2A 2RS
<b>PROPERTY NUMBERS Total: 4</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15317794
<b>Application Number:</b>	16149651
<b>Application Number:</b>	17120889
<b>Application Number:</b>	18332148
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
<b>Phone:</b>	2039720081
<b>Email:</b>	maschoff@bmtpatent.com,docketing@bmtpatent.com
<b>Correspondent Name:</b>	Mr. Kurt M Maschoff
<b>Address Line 1:</b>	134 Main Street, Suite 301
<b>Address Line 4:</b>	New Canaan, CONNECTICUT 06840
<b>ATTORNEY DOCKET NUMBER:</b>	P08.000
<b>NAME OF SUBMITTER:</b>	Kurt Maschoff
<b>SIGNATURE:</b>	Kurt Maschoff
<b>DATE SIGNED:</b>	03/13/2024
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 16</b>	

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( 1 ) P E T E R G R A H A M C R A V E N

( 2 ) M A L C O L M J A M E S L A W

( 3 ) M Q A L I M I T E D

# A S S I G N M E N T A N D L I C E N C E A G R E E M E N T

26 JULY 2019

Reed Smith LLP  
The Broadgate Tower  
20 Primrose Street  
London EC2A 2RS  
Phone: +44 (0) 20 3116 3000  
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DX1066 City / DX18 London

r e e d s m i t h . c o m

**ReedSmith**

**PATENT**  
**REEL: 066751 FRAME: 0341**

**THIS AGREEMENT** is dated 26 July 2019

**PARTIES:**

- (1) **PETER GRAHAM CRAVEN** of The Keep, Midhurst Road, Haslemere, Surrey GU27 2PT ('**PC**')
- (2) **MALCOLM JAMES LAW** of 29 Hills Road, Steyning, West Sussex BN44 3QG ('**ML**')
- (3) **MQA LIMITED**, a company incorporated and registered in England and Wales under number 09123512 whose registered office is at The Broadgate Tower Third Floor, 20 Primrose Street, London, United Kingdom, EC2A 2RS ('**MQA**'); and

each a '**Party**' and together the '**Parties**' to this Agreement.

**BACKGROUND:**

- (A) PC, ML and Meridian have collaborated in the development of the MQA Technology since 20 August 2011.
- (B) PC, ML and employees of Meridian are the inventors or authors of the MQA Technology, in some cases jointly and in other cases independently.
- (C) The Intellectual Property Rights in those parts of the MQA Technology invented or created by employees of Meridian were vested in Reinet by an Assignment of Intellectual Property Rights dated 07 June 2015.
- (D) Reinet licensed all of its interests in the MQA Technology to MQA on the terms of the Reinet Licence Agreement dated 10 June 2015 and agreed to assign to MQA the Reinet Intellectual Property Rights, by a Deed of Assignment dated the same date as this Agreement.
- (E) PC and ML have licensed their interests in the MQA Technology to MQA on the terms of the Inventor Licence Agreement. PC and ML are assigning their interests in some of the MQA Technology to MQA pursuant to clause 3.8 of the Inventor Licence Agreement on the terms set out below.

**NOW IT IS AGREED AS FOLLOWS:**

**1 DEFINITIONS AND INTERPRETATION**

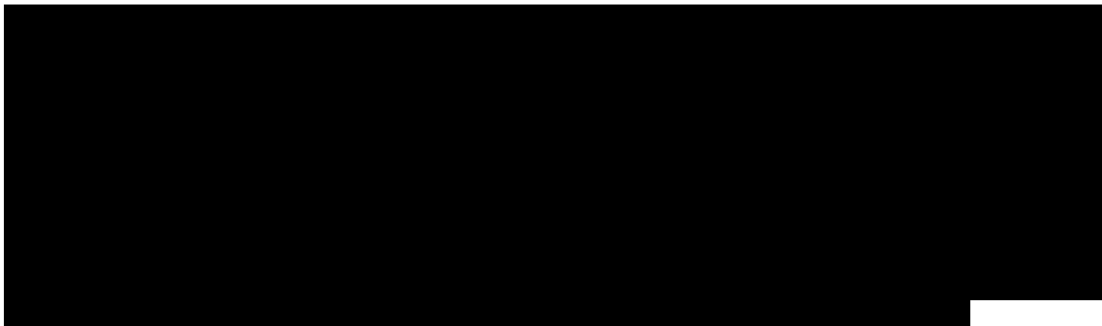
1.1 In this Agreement, unless the context otherwise requires:

'**this Agreement**' means this document (including the Schedule), as amended from time to time in accordance with Clause 11.1;

'**Algoi Applications Limited**' means Algoi Applications Limited, a company incorporated in England and Wales under number 01836288, whose registered office is at 29 Hills Road, Steyning, West Sussex, BN44 3QG;

'**Associated Company**' has the meaning given to that expression in section 449 of the Corporation Tax Act 2010;

'**Assigned Rights**' have the meaning given to them in Clause 2.1;



[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

[REDACTED] the same time as the Parties entered into the Inventor Licence Agreement;

'Effective Date' means 26 July 2019;

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

- [REDACTED]

[REDACTED]

[REDACTED]

**'Improvement'** means any improvement, enhancement or modification to any technology, including any which expands the applications to which that technology may be applied or which would, if implemented, replace or provide an alternative to that technology in one or more fields of use, including any improvement made under or pursuant to the Consultancy Agreement;

[REDACTED]

**'Intellectual Property Rights'** means patents, rights to any invention, copyrights and related rights, moral rights, rights in software, trade marks, service marks, trade names, domain names, rights in any get-up, goodwill and the right to sue for passing off or unfair competition, registered designs, rights in designs, rights of confidence, rights in any know-how, trade secrets, right to extract and exploit data, database rights and any similar or equivalent rights protected in any jurisdiction, whether now existing or coming into existence at some future date and whether or not registered, any application for (and rights to apply for and be granted) any of the above, any renewals or extensions of, and rights to claim priority from, any such rights and any accrued rights of action in respect of any of the above;

**'Inventor Licence Agreement'** means the Licence Agreement Relating to Intellectual Property Rights in the MQA Technology between PC, ML and MQA dated 07 June 2015;

**'Know How'** means the know-how referred to in Part 4 of the Schedule;

**'Licensed Rights'** means rights granted in the exclusive licences and the non-exclusive licence in Clauses 3.1, 3.2 and 3.3;

**'Meridian'** means Meridian Audio Limited, a company incorporated in England and Wales under number 2710631, whose registered office is at Latham Road, Huntingdon, Cambridgeshire PE29 6YE;

**'Meridian Group Companies'** means Meridian and its Associated Companies from time to time;

[REDACTED]

[REDACTED]

[REDACTED]

**'Prediction Patent'** means PCT/GB2010/001663 together with its national or regional counterparts;

**'Prediction Patent Field of Use'** means bandwidth-extension codecs;

**'Project'** means the development of the MQA Technology and the exploitation of the MQA Technology;

**'Reinet'** means Reinet S.à.r.l., a company registered in Luxembourg under number B-140794 of 35, Boulevard Prince Henri, L-1724 Luxembourg;

**"Reinet Deed of Assignment"** means the deed of assignment of the Reinet Intellectual Property Rights to MQA dated on or before the date of this Agreement;

**'Reinet Licence Agreement'** means the licence agreement between Reinet and MQA dated 07 June 2015 under which Reinet licensed all its interests in the MQA Technology to MQA;

**'Reinet Intellectual Property Rights'** means the inventions and other Intellectual Property Rights listed in Schedule 2 to the Inventors Licence Agreement and the Intellectual Property Rights in any Improvement to the same;

**'Reserved Fields of Use'** means any field of use except the Fields of Use;

**'Ringshifter Patent'** means (GB 1421466.2; EP 14196063.3) together with its national or regional counterparts; and

**'Utilities'** means the software utilities listed in Part 5 of the Schedule.

- 1.2 Any reference in this Agreement to information includes any information and any data, regardless of the form in which it is acquired, transmitted, disclosed, stored or recorded, including orally, in writing, electronically or in any other way.
- 1.3 Any reference in this Agreement to a document or record includes any eye-readable or electronic record.
- 1.4 Any reference in this Agreement to software includes both object and source code and documentation relating to software.
- 1.5 Any reference in this Agreement to a person includes a natural person, corporate or unincorporated body (whether or not having separate legal personality) and that person's personal representatives, successors and permitted assigns.
- 1.6 Any reference in this Agreement to a statute or regulation is to be construed as a reference to that statute or regulation as amended or re-enacted from time to time, and it includes any subordinate legislation made under it and for the time being in force.
- 1.7 The headings in this Agreement are for ease of reference only; they do not affect its interpretation or construction.
- 1.8 References in this Agreement to a Clause are to a clause of this Agreement.
- 1.9 References in this Agreement to the Schedule are to the schedule of this Agreement.
- 1.10 Any words in this Agreement following the expressions including, include, in particular, or any similar expression, are to be construed as illustrative and do not limit the sense of the words, description, definition, phrase or expression preceding those expressions.
- 1.11 The rule known as the ejusdem generis rule does not apply to this Agreement. Accordingly, general words introduced by the word other shall not be given a restrictive meaning because they are preceded by words indicating a particular class of acts, matters or things.
- 1.12 A reference in this Agreement to a company includes any company, corporation or other body corporate, wherever and however incorporated or established.

- 1.13 This Agreement shall be binding on, and enure to the benefit of, the Parties to this Agreement and their respective personal representatives, successors and permitted assigns, and references to any Party shall include that Party's personal representatives, successors and permitted assigns.
- 1.14 A reference in this Agreement to writing or written includes e-mail.
- 1.15 The expression 'copyright' when used in this Agreement means the entire present and future copyright and design right (including future copyright) subsisting under the laws of the United Kingdom and all analogous rights subsisting under the laws of each and every jurisdiction throughout the world.

## 2 ASSIGNMENT

- 2.1 In consideration of the sum of £1 each (receipt of which each PC and ML expressly acknowledge), pursuant to Clause 3.18 of the Inventor Licence Agreement, as of the Effective Date or, if later, the date on which Reinet assigns the Reinet Intellectual Property Rights to MQA:
- (a) PC and ML each hereby assigns to MQA all his rights, title and interest in and to the PC/ML Intellectual Property Rights, excluding: (i) the Prediction Patent; (ii) the Background Technology; (iii) the Incorporated Background; (iii) the Utilities; (iv) the Know-How and (v) the Intellectual Property Rights in Part 3 of the Schedule; and
  - (b) PC hereby assigns to MQA all his rights, title and interests in and to the Intellectual Property Rights in Part 3 of the Schedule subject, in the case of the Ringshifter Patent, to the licence granted to PC in Clause 4.1,
- together, the "Assigned Rights".
- 2.2 The Parties agree that the assignment in Clause 2.1 is to take place at the same time as Reinet assigns, or after Reinet has assigned, the Reinet Intellectual Property Rights to MQA.
- 2.3 PC and ML consent to Reinet's assignment of the Reinet Intellectual Property Rights in Part 2 of Schedule 2 to the Inventor Licence Agreement and PC consents to Reinet's assignment of the Reinet Intellectual Property Rights in Part 3 of Schedule 2 to the Inventor Licence Agreement, in each case, to MQA on the terms of the Reinet Deed of Assignment.
- 2.4 The assignments in Clause 2.1 include the assignment and transfer of all rights of action, powers and benefits arising from the ownership of the Assigned Rights, including the right, at MQA's sole expense, to sue for damages and other legal and equitable remedies (and retain any financial award made in any action) in respect of all causes of action arising prior to, on or after the date of this Agreement.
- 2.5 To the extent available and except in relation to the Prediction Patent, PC and ML shall deliver to MQA on the date of this Agreement or as soon as is reasonably practicable thereafter all registration or grant certificates for any registered intellectual property rights relating to the Assigned Rights.

3

(a)



(c) [REDACTED]

[REDACTED]

3.3 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(d) the exclusive, worldwide right for MQA itself (with the right to sub-license to its agents, [REDACTED])

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(e) [REDACTED]

[REDACTED]

4 [REDACTED]

[REDACTED]

4.2

[REDACTED]

5

**CONDUCT OF CLAIMS**

5.1

[REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

5.2

[REDACTED]

5.3

[REDACTED]

5.4

[REDACTED]

6 FURTHER ASSURANCE

6.1

[REDACTED]

7 WARRANTIES AND LIABILITY

7.1

[REDACTED]

■

[REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

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[REDACTED]

7.6

[REDACTED]

[REDACTED]

7.9 [REDACTED]

[REDACTED]

(a) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

7.12 [REDACTED]

8 **CONFIDENTIALITY**

8.1 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(ii) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(d) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8.3 [REDACTED]

[REDACTED]

[REDACTED]

8.4 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(e) [REDACTED]

8.5

[REDACTED]

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[REDACTED]

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[REDACTED]

9.2

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[REDACTED]

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[REDACTED]

(e)

[REDACTED]

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[REDACTED]

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[REDACTED]

■

[REDACTED]

9.5

[REDACTED]

10

**WAIVER**

10.1

[REDACTED]

11

**VARIATION**

11.1

[REDACTED]

12

**SEVERANCE**

12.1

[REDACTED]

12.2

[REDACTED]

**13 COUNTERPARTS**

13.1 This Agreement may be executed in any number of counterparts, each of which when executed and delivered shall constitute a duplicate original, but all the counterparts shall together constitute the one Agreement.

**14 GOVERNING LAW AND JURISDICTION**

14.1 [REDACTED]

**15 EXCLUSION OF THIRD PARTY RIGHTS**

15.1 [REDACTED]

**16 ANTI-BRIBERY**

16.1 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

16.2 [REDACTED]

**17 ASSIGNMENT**

17.1 Subject to Clauses 17.2 and 17.3, this Agreement is personal to the Parties and none of the Parties may, without the prior written consent of each of the other Parties (that consent not to be unreasonably withheld or delayed or made subject to any unreasonable condition) assign, transfer, mortgage, charge, declare a trust of or deal with the rights licensed to it by the other Party in a manner that is inconsistent with this Agreement.

17.2 PC or ML shall each have the right to assign his Intellectual Property Rights in the Prediction Patent, subject to the rights in relation to the Prediction Patent granted to MQA in this Agreement.

**18 NOTICES**

18.1 Any notice, report, request, consent, approval, agreement or other communication required to be given under this Agreement, must be in writing and be delivered by hand, or sent by pre-paid first class post or by commercial courier, to his or its address set out at the beginning of this Agreement

or to any other address specified by the intended recipient by notice given in accordance with this Clause 18.1 to each of the other Parties.

18.2 Any notice, report, request, consent, approval, agreement or other communication given in accordance with Clause 18.1 shall be deemed to have been duly received:

- (a) if delivered by hand, when left at the address referred to in Clause 18.1;
- (b) if sent by pre-paid first class post, at 9.00 am on the fourth day after posting;
- (c) if delivered by commercial courier, on the date and at the time that the courier's delivery receipt is signed.

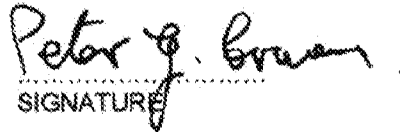
18.3 The provisions of Clauses 18.1 and 10.8 do not apply to the service of any proceedings or other documents in any legal action.

Signed in behalf of MQA Limited



.....  
SIGNATURE OF DIRECTOR  
Director

Signed by Peter Graham Craven



.....  
SIGNATURE

Signed by Malcolm James Law

.....  
SIGNATURE



## THE SCHEDULE

### **PART 1 (Clause 2.1(a) refers) — Intellectual Property Rights owned by PC and ML**

- a) The Intellectual Property Rights claimed in the following patents and patent applications:
  - i. Lossless Buried Data (PCT/GB2012/052648);
  - ii. CD Quality MQA (GB 1405958.8); and
  - iii. Prediction (PCT/GB2010/001663) together with their national or regional counterparts;
- b) inventions made by PC or ML (or both of them) in the course of the Project relating to lossless bandsplitting;
- c) the copyright in specifications (including filter coefficients) which either PC or ML has provided for the purpose of the Project and in software which ML has written for the MQA Technology, with related documentation; and

### **PART 2 (Clause 2.1(a) refers) - Intellectual Property Rights co-owned by PC, ML and Reinet**

The Intellectual Property Rights claimed in the following patents and patent applications: Lossless Bandwidth Extension (PCT/GB2013/051548); and together with its national or regional counterparts.

### **PART 3 (Clause 2.1(b) refers) – Intellectual Property Rights co-owned by PC and Reinet**

The Intellectual Property Rights claimed in the following patents and patent applications:

- a) Ringshifter (GB 1421466.2; EP 14196063.3);
- b) Encapsulation Mark I (PCT/GB2014/050040);
- c) Encapsulation Mark II (PCT/GB2014/051789)

together with their national or regional counterparts.

### **PART 4 - Know-How (Clause 3.1(b) refers)**

- a) Know-how developed, created or provided by PC or ML (or both of them) relating to the MQA Technology including those relating to:
  - i. Versatile distribution of music;
  - ii. Content Rights management;
  - iii. Lossless embedding of metadata;
  - iv. Stream signing and authentication;
  - v. Encryption methods and their applications;
  - vi. Lossless bandsplitting;
  - vii. Lossless bandwidth extension;
  - viii. Backwards-compatible PCM encoding to reduce data rate;
  - ix. Concepts and methods for encoding audio in a legacy-compatible stream;
  - x. Encapsulation;
  - xi. Rendering;
  - xii. Up and down sampling;
  - xiii. Ringshifters;
  - xiv. Characterisation of analogue tape recorders, A/D and D/A converters;
  - xv. Lossless buried data;
  - xvi. Bitstream organisation;
  - xvii. Dynamic, embedded, gain control; and
  - xviii. The application of specific dithers and their impact on sound quality; and

- b) The Incorporated Background

**PART 5 – the Utilities (Clause 3.1(c) refers)**

Software facilitating the automatic generation of DSP code intended for pre-production prototyping.

Software aiding the design and generation of digital filters including minimum-phase filters, maximally flat filters, apodising filters and noise-shaping filters.

Minor mathematical utilities supporting the above software.