## 505502432 05/31/2019

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5549236

| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

#### **CONVEYING PARTY DATA**

| Name                  | Execution Date |
|-----------------------|----------------|
| ADAM JOHN BOULTON     | 02/12/2019     |
| WILLIAM JAMES MCCOURT | 11/23/2018     |
| BENJAMIN JOHN GODWOOD | 11/23/2018     |
| PAUL COMPTON HIRST    | 11/19/2018     |
| NIALL FITZGIBBON      | 11/19/2018     |

#### **RECEIVING PARTY DATA**

| Name:             | BLACKBERRY UK LIMITED             |
|-------------------|-----------------------------------|
| Street Address:   | GROUND FLOOR, THE PEARCE BUILDING |
| Internal Address: | WEST STREET, MAIDENHEAD           |
| City:             | BERKSHIRE                         |
| State/Country:    | UNITED KINGDOM                    |
| Postal Code:      | SL6 1RL                           |

## **PROPERTY NUMBERS Total: 1**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 16148690 |

## **CORRESPONDENCE DATA**

**Fax Number:** (877)769-7945

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.

Email: apsi@fr.com

Correspondent Name: FISH & RICHARDSON P.C.

Address Line 1: P.O. BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440

| ATTORNEY DOCKET NUMBER: | 29717-2215001    |
|-------------------------|------------------|
| NAME OF SUBMITTER:      | CHRISTIE LOVEN   |
| SIGNATURE:              | /Christie Loven/ |
| DATE SIGNED:            | 05/31/2019       |

Total Attachments: 38

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PATENT REEL: 049334 FRAME: 0149



PATENT REEL: 049334 FRAME: 0150

## WORLDWIDE ASSIGNMENT

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

BOULTON, Adam John, 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom

McCOURT, William James, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

GODWOOD, Benjamin John, 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom

HIRST, Paul Compton, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

FITZGIBBON, Niall, 187A Blackstock Road, London, N5 2LL, United Kingdom

am an/are inventor(s) of an invention entitled ANALYZING BINARY SOFTWARE CODE ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

## US Application # 16/148,690 filed 1 October 2018

AND WHEREAS, BLACKBERRY UK LIMITED, (hereinafter referred to as the "ASSIGNEE"), a company organized under the laws of England and Wales, having a place of business at Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom, is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention;

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer, convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; inclusive of any and all priority rights, including the right to claim priority, derived from the Applications; any further applications for patent, design registration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the Invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and

Page 1 of 7 V7.3

continuation applications of any one or more of the Applications and Further Applications ("Divisionals"); the right to obtain patents, design registrations, utility model registrations and all other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed in respect of one or more of the aforesaid Invention, Applications, Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns (as applicable), to file, prosecute, bring proceedings and take other actions with respect to any and all of the Invention, Applications, Further Applications, Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns (as applicable), any and all further documents which may be necessary or desirable to vest or perfect the title of ASSIGNEE therein.

ASSIGNOR(S) does/do hereby authorize ASSIGNEE or its patent agents or attorneys to insert, above, the jurisdictions, application numbers, filing dates and any other indicia identifying the Applications when such information is available for the purpose of recording this assignment.

ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other form of protection, right, and title granted upon the Applications, Further Applications, Divisionals and Extensions.

THIS WORLDWIDE ASSIGNMENT shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon ASSIGNOR(S) and their successors and permitted assigns.

DELIVERY of this Worldwide Assignment by copy, however transmitted, constitutes valid and effective delivery. This Worldwide Assignment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original, and such counterparts shall together constitute one and the same instrument.

| IN WITNESS   | WHEREOF, this | Worldwide | Assignment | has been | executed | below b | y the |
|--------------|---------------|-----------|------------|----------|----------|---------|-------|
| undersigned: |               |           |            |          |          |         |       |

BOULTON, Adam John 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom Date: 12/02/19

## STATEMENT BY WITNESS

I, MELONIE BOLTON, whose full Post Office address is

6 HATERFORD IRON
(Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same.

(Signature of Witness)

Date: 12/02/19

| BlackBerry Fa | mily Ket. | No.: | -50429 |
|---------------|-----------|------|--------|
|---------------|-----------|------|--------|

| cCOURT, William Jan      |                |                  |                     |   |
|--------------------------|----------------|------------------|---------------------|---|
| COIDT William Ion        |                |                  |                     |   |
|                          |                | Date:            |                     |   |
| ound Floor, The Pear     |                |                  |                     |   |
| aidenhead, Berkshire,    | .c.munung, 1   | v csi sii cci,   |                     |   |
| .6 1RL,                  |                |                  |                     |   |
| iited Kingdom            |                |                  |                     |   |
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|                          |                |                  |                     |   |
|                          |                |                  |                     |   |
| Ĭ,                       |                |                  | , whose full Po     | st Office address is                    |
|                          |                |                  |                     |   |
|                          |                |                  |                     |   |
|                          | (A             | ddress of Witn   | ess)                | *************************************** |
|                          | *              |                  | ~~~ <b>~</b>        |   |
| 101 42 102 40 0000       |                |                  |                     |   |
| eby declare that I was p | ersonally pres | sent and did see | the above named p   | person, personally                      |
| own to me to be a person | named in the   | e Worldwide A    | ssignment, duly sig | n and execute same.                     |
|                          |                |                  |                     |   |
|                          |                |                  |                     |   |
|                          |                |                  |                     |   |
|                          |                | TN               | le;                 |   |

Page 4 of 7

| BlackBerry Family | Ref. | No.: | 50429 |
|-------------------|------|------|-------|
|-------------------|------|------|-------|

| undersigned:   | ldwide Assignment has been er  | recuted below by the                                    |
|--|--|---|
|  |  |   |
|  | Date:  | 900/1122  |
| GODWOOD, Benjamin John<br>9 Hill Crescent, Finstock,<br>Chipping Norton, OXON,<br>OX7 3BT, |  |   |
| United Kingdom   |  |   |
| I,   |  | 0.11 P. 1.000 11 1                                      |
|  | , wnose  | full Post Office address is                             |
|  |  | full Post Office address is                             |
| hereby declare that I was personally known to me to be a person named in                   | (Address of Witness)  present and did see the above to the Worldwide Assignment, or the Worldwide Assig | named person, personally<br>duly sign and execute same. |

| 731 1.73   | 53     | · · · · · · · · · · · · · · · · · · · | No.  | # CV - 1 CV - CV |
|------------|--------|---------------------------------------|------|------------------|
| BlackBerry | ramily | Ket.                                  | No.: | 50429            |

| undersigned:   | voridwide Assignment has b                           | een executed below by the        |
|--|--|----------------------------------|
|  | Dofo   |                                  |
| HIRST, Paul Compton                                  | Date:  |                                  |
| Ground Floor, The Pearce Build                       | ding, West Street,                                   |                                  |
| Maidenhead, Berkshire,<br>SL6 1RL,<br>United Kingdom |  |                                  |
| 157  |  |                                  |
| •  | OT A TILBATERITE IRST BUTTERITE                      | ia:                              |
|  | STATEMENT BY WITNES                                  | 20                               |
|  |  |                                  |
| Ц,   | , w  | hose full Post Office address is |
| I,   | (Address of Witness)                                 | hose full Post Office address is |
| I,   |  | hose full Post Office address is |
|  | (Address of Witness)  ly present and did see the abo | ove named person, personally     |

Page 6 of 7

| BlackBerry       | T 0 5    | 73 63  | 3.7     | 50429       |
|------------------|----------|--------|---------|-------------|
| LEIONIZ LEOMMY   | A        | 67 (34 | 13173 " | ~ (3/) / (3 |
| TRICKEN TRUE I V | CRITTIES | 177.1. | 1.467   | 20162       |
|                  |          |        |         |             |

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
| Date:  FITZGIBBON, Niall  187A Blackstock Road, London, N5 2LL, United Kingdom  |
| STATEMENT BY WITNESS  |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. |
| Date:(Signature of Witness)   |

#### WORLDWIDE ASSIGNMENT

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

BOULTON, Adam John, 6 Waterford Road, Oxton, Wirral, CH43 6UI, United Kingdom

McCOURT, William James, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

GODWOOD, Benjamin John, 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom

HIRST, Paul Compton, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 IRL, United Kingdom

FITZGIBBON, Niall, 187A Blackstock Road, London, N5 2LL, United Kingdom

am an/are inventor(s) of an invention entitled ANALYZING BINARY SOFTWARE CODE ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

#### US Application # 16/148,690 filed 1 October 2018

AND WHEREAS, BLACKBERRY UK LIMITED, (hereinafter referred to as the "ASSIGNEE"), a company organized under the laws of England and Wales, having a place of business at Ground Floor. The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom, is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention:

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer.

Page 1 of 10

convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; inclusive of any and all priority rights, including the right to claim priority, derived from the Applications; any further applications for patent, design registration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and continuation applications of any one or more of the Applications and Further Applications ("Divisionals"), the right to obtain patents, design registrations, utility model registrations and all other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed in respect of one or more of the aforesaid Invention, Applications, Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns (as applicable), to file, prosecute, bring proceedings and take other actions with respect to any and all of the Invention, Applications, Further Applications, Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns (as applicable), any and all further documents which may be necessary or desirable to vest or perfect the title of ASSIGNEE therein.

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ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other

Page 2 of 10

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Page 3 of 10

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
|   |
| Date:   |
| BOULTON, Adam John 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom  |
|   |
| STATEMENT BY WITNESS  |
|   |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. |
| Date:<br>(Signature of Witness)   |
| Page 4 of 10  |

V7.3

PATENT REEL: 049334 FRAME: 0161

Date:  $\frac{23/11/19}{}$ 

IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:

McCOURT, William James

Ground Floor, The Pearce Building, West Street,

Maidenhead, Berkshire,

SL6 IRL,

United Kingdom

## STATEMENT BY WITNESS

1, PALLERS & MCCOLLET , whose full Post Office address is

34 BCBYN DRIVE MURIESTON EHSGESN (Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same.

ATTCOLV (Signature of Witness) Date: 23<sup>rd</sup> 60rv 2018

Page 5 of 10

BlackBerry Family Ref. No.: 50429
ment has been executed below by the

|  | Date:  |
|--|--|
| GODWOOD, Benjamin<br>Hill Crescent, Finstock<br>Thipping Norton, OXO?<br>OX73BT,<br>Inited Kingdom | John<br>5  |
|  | STATEMENT BY WITNESS   |
| 1,   | , whose full Post Office address is  |
|  | (Address of Witness)   |
|  | 28   |
| ereby declare that I was p<br>nown to me to be a perso   | personally present and did see the above named person, personally n named in the Worldwide Assignment, duly sign and execute same. |

Page 7 of 10

V7.3

PATENT REEL: 049334 FRAME: 0164

| IN WITNESS WHEREOF, this Work undersigned:   | dwide Assignment has been executed below by the   |
|--|---|
|  |   |
|  | Date:   |
| HIRST, Paul Compton<br>Ground Floor, The Pearce Building<br>Maidenhead, Berkshire,<br>SL6 1RL,<br>United Kingdom |   |
| ST/  | ATEMENT BY WITNESS  |
| Ĭ,   | , whose full Post Office address is   |
|  | (Address of Witness)  |
|  | resent and did see the above named person, personally the Worldwide Assignment, duly sign and execute same. |
|  | Date:   |
| Page 8<br>of 10  |   |

(Signature of Witness)

Page 9 of 10

BlackBerry Family Ref. No.: 50429 IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned: Date:\_\_\_\_ FITZGIBBON, Niali 187A Blackstock Road, London, N5 2LL, United Kingdom STATEMENT BY WITNESS I, \_\_\_\_\_\_, whose full Post Office address is (Address of Witness) hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. Date:

Page 10 of 10

(Signature of Witness)

## WORLDWIDE ASSIGNMENT

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

BOULTON, Adam John, 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom

McCOURT, William James, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

GODWOOD, Benjamin John, 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 38T, United Kingdom

HIRST, Paul Compton, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 IRL, United Kingdom

FITZGIBBON, Niall, 187A Blackstock Road, London, N5 2LL, United Kingdom

am an/are inventor(s) of an invention entitled ANALYZING BINARY SOFTWARE CODE ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

# US Application # 16/148,690 filed 1 October 2018

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| IN WITNESS WHEREOF, this World<br>undersigned:   | lwide Assignment has been executed below by the   |
|--|---|
| ĭ  | Date:   |
| BOULTON, Adam John<br>6 Waterford Road,<br>Oxfos, Wirral,<br>CH43 6UT,<br>United Kingdom |   |
| STATEME?   | VT BY WITNESS   |
| 1,   | , whose full Post Office address is   |
| (Addres  | ss of Witness)  |
|  | nd did see the above named person, personally ridwide Assignment, duly sign and execute same. |
| (Signature of Witness)   | Date:   |
|  |   |

Page 3 of 7

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| IN WITNESS WHEREAP, this Workiwide Assignance and serging and serg | nment has been executed below by the |
|--|--------------------------------------|
|  |                                      |
|  |                                      |
| McCOURT, William James   |                                      |
| Ground Floor, The Pearce Building, West Stree  | at,                                  |
| Maidenhead, Berkshire,<br>SL6 IRL,   |                                      |
| United Kingdom   |                                      |
|  |                                      |
|  |                                      |
| STATEMENT E  | Y WITNESS                            |
|  |                                      |
| <b>3</b>   | mbooo Asii Dast (SPAca address is    |
| N  | , whose full Post Office address is  |
|  |                                      |
| (Address of  | Witness)                             |
|  |                                      |
| hereby declare that I was personally present and dispown to me to be a person named in the Worldw  |                                      |
| x  | ·                                    |
|  |                                      |
|  | Date:                                |
| (Signature of Witness)   |                                      |
|  |                                      |

Page 4 of 7

V7,3

PATENT REEL: 049334 FRAME: 0171

IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:

GODWOOD, Benjamin John 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom Date: 23/11/2018

### STATEMENT BY WITNESS

I, MAKGAIGT MASON , whose full Post Office address is

9 KILL CRESCENT, ANTICK CHAPING MORTON, OX7 SAT (Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same.

\_\_\_\_\_\_(Signature of Witness)

Date: 23/11/2018 .

Page 5 of 7

V7.3

PATENT REEL: 049334 FRAME: 0172

|                    | Date:  |
|--------------------|--|
| IRST, Paul Compton | e Building, West Street,   |
|                    | STATEMENT BY WITNESS   |
| I                  | , whose full Post Office address   |
|                    | (Address of Witness)   |
|                    | ersonally present and did see the above named person, personally<br>mamed in the Worldwide Assignment, duly sign and execute san |
|                    |  |

Page 6 of 7

| Date:    FITZGIBBON, Niail   187A Blackstock Road, condon, NS 21.1.     Inited Kingdom   | N WITNESS WHEREOF, (indensigned)                            | this Worldwide Assignment has been executed below by the  |
|--|---|---|
| FITZGIBBON, Niall  187A Blackstock Road; London, N5 2LL,  Inited Kingdom  STATEMENT BY WITNESS  I, whose full Post Office address is  (Address of Witness)  creby declare that I was personally present and did see the above named person, personally |   |   |
| ISTA Blackstock Road, London, N5 21 L, United Kingdom  STATEMENT BY WITNESS  I, whose full Post Office address is  (Address of Witness)  creby declare that I was personally present and did see the above named person, personally                    |   | Date:   |
| t, whose full Post Office address is  (Address of Witness)  areby declare that I was personally present and did see the above named person, personally   | 87A Blackstock Road,<br>.oudon, NS 21 L,                    |   |
| t, whose full Post Office address is  (Address of Witness)  areby declare that I was personally present and did see the above named person, personally   |   |   |
| t, whose full Post Office address is  (Address of Witness)  areby declare that I was personally present and did see the above named person, personally   |   | ,   |
| (Address of Wimess)  creby declare that I was personally present and did see the above named person, personally  |   | STATEMENT BY WITNESS  |
| ereby declare that I was personally present and did see the above named person, personally   | Į,  | whose full Post Office address is   |
| ereby declare that I was personally present and did see the above named person, personally<br>nown to me to be a person named in the Worldwide Assignment, duly sign and execute same  |   | (Address of Witness)  |
|  | ereby declare that I was per<br>nown to me to be a person n | sonally present and did see the above named person, personally<br>samed in the Worldwide Assignment, duly sign and execute same |
|  |   | <b>,</b> , , , , , , , , , , , , , , , , , ,  |
|  |   |   |

Page 7 of 7

(Signature of Witness)

#### WORLDWIDE ASSIGNMENT

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

BOULTON, Adam John, 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom

McCOURT, William James, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL. United Kingdom

GODWOOD, Benjamin John. 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom

HIRST, Paul Compton, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

FITZGIBBON, Niall, 187A Blackstock Road, London, N5 2LL, United Kingdom

am an/are inventor(s) of an invention entitled ANALYZING BINARY SOFTWARE CODE ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

#### US Application # 16/148,690 filed 1 October 2018

AND WHEREAS, BLACKBERRY UK LIMITED, thereinafter referred to as the "ASSIGNEE"), a company organized under the laws of England and Wales, having a place of business at Ground Floor, The Pearce Butiding, West Street, Maidenhead, Berkshire, SL6 IRL, United Kingdom, is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention:

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged. ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer, convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; inclusive of any and all priority rights, including the right to claim priority, derived from the Applications; any further applications for patent, design tegistration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the Invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and continuation applications of any one or more of the Applications and Further Applications ("Divisionals"); the right to obtain patents, design registrations, utility model registrations and all

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PATENT REEL: 049334 FRAME: 0175

other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed in respect of one or more of the aforesaid Invention. Applications. Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns (as applicable), to file, prosecute, bring proceedings and take other actions with tespect to any and all of the Invention, Applications, Further Applications. Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns (as applicable), any and all further documents which may be necessary or desirable to vest or perfect the title of ASSIGNEE therein.

ASSIGNOR(S) does/do hereby authorize ASSIGNEE or its patent agents or attorneys to insert, above, the jurisdictions, application numbers, filing dates and any other indicia identifying the Applications when such information is available for the purpose of recording this assignment.

ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other form of protection, right, and title granted upon the Applications, Purther Applications, Divisionals and Extensions.

THIS WORLDWIDE ASSIGNMENT shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon ASSIGNOR(S) and their successors and permitted assigns.

DELIVERY of this Worldwide Assignment by copy, however transmitted, constitutes valid and effective delivery. This Worldwide Assignment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original, and such counterparts shall together constitute one and the same instrument.

Page 2 of 7 V7.3

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
|   |
| BOULTON, Adam John 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom  |
| STATEMENT BY WITNESS  |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duty sign and execute same. |
| (Signature of Witness)  |
|   |
| Page 3 of 7 V7.3  |

| undersigned:   | vide Assignment has been executed below by the  |
|--|---|
|  | Date:   |
| McCOURT, William James<br>Ground Floor, The Pearce Building,<br>Maidenhead, Berkshire,<br>SL6 IRL,<br>United Kingdom | West Street,  |
| STAT   | EMENT BY WITNESS  |
| L  | , whose full Post Office address is   |
| ()   | Address of Witness)   |
|  | esent and did see the above named person, personally<br>ne Worldwide Assignment, duly sign and execute same |
| (Signature of Witness)   | Date:   |

Page 4 of 7 V7.3

BlackBerry Family Ref. No.: 50429

|  | BlackBerry Family Ref. No.: 50429   |
|--|---|
| IN WITNESS WHEREOF, this Worldwide undersigned:                                    | Assignment has been executed below by the   |
| GODWOOD, Benjamin John   | Date:   |
| 9 Hill Crescent, Finstock,<br>Chipping Norton, OXON,<br>OX7 3BT,<br>United Kingdom |   |
| STATEM   | ENT BY WITNESS  |
| i,   | , whose full Post Office address is   |
| (Addi  | ress of Witness)  |
|  | and did see the above named person, personally forldwide Assignment, duly sign and execute same |

(Signature of Witness)

Page 5 of 7 V7.3

Date: \_\_\_\_\_

| undersigned:   | s worldwide Assignment has been executed below by   | tne                   |
|--|---|-----------------------|
| f ligar  | Date: 19th Nev 2018   |                       |
| HIRST, Paul Compton<br>Ground Floor, The Pearce Ba<br>Maidenhead, Berkshire,<br>SL6 1RL,<br>United Kingdom |   |                       |
|  | STATEMENT BY WITNESS  |                       |
| 1. MRS EMERN)  | HEST , whose full Post Office :   | address is            |
| <u>STEPPES COSTAGGE</u>  | OBKEDIO TOECTON EXIMIEN<br>(Address of Witness)   | _UK                   |
| hereby declare that I was person har known to me to be a person har  | nally present and did see the above named person, per<br>med in the Worldwide Assignment, duly sign and exe | rsonally<br>cute same |
| (Signature of Witness)   | Date: <u>19 <sup>th</sup> Nov 2016</u>  |                       |
|  |   |                       |
|  | Page 6 of 7   | V7.3                  |

|   | Date:  |
|---|--|
| FITZGIBBON, Niall<br>187A Blackstock Road,<br>London, N5 2LL,<br>United Kingdom |  |
|   | FATEMENT BY WITNESS  |
| ξ,  | whose full Post Office address is  |
|   | (Address of Witness)   |
|   | r present and did see the above named person, personally in the Worldwide Assignment, duly sign and execute same |
| (Signature of Witness)  | Date:  |

Page 7 of 7 V7.3

BlackBerry Family Ref. No.: 50429

## **WORLDWIDE ASSIGNMENT**

WHEREAS, I/WE, (hereinafter referred to as the "ASSIGNOR(S)"):

BOULTON, Adam John, 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom

McCOURT, William James, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

GODWOOD, Benjamin John, 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom

HIRST, Paul Compton, Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom

FITZGIBBON, Niall, 187A Blackstock Road, London, N5 2LL, United Kingdom

am an/are inventor(s) of an invention entitled **ANALYZING BINARY SOFTWARE CODE** ("Invention") for which one or more applications for patent, design registration, utility model registration, or other form of protection, rights, or title have been or will be made in certain countries ("Applications"), as further described below:

## **US Application # 16/148,690 filed 1 October 2018**

AND WHEREAS, **BLACKBERRY UK LIMITED**, (hereinafter referred to as the "ASSIGNEE"), a company organized under the laws of England and Wales, having a place of business at Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom, is desirous of acquiring the full and exclusive right, title and interest in and to said Invention, said Applications inclusive of all ancillary rights relating thereto, any and all priority rights derived from said Applications, and all patents, design registrations, utility model registrations and other forms of protection, rights and titles relating to said Invention, in any country or countries and in respect of the whole or any part or parts of or improvements to the Invention;

NOW THEREFORE, for valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR(S) does/do hereby confirm that ASSIGNOR(S) has/have transferred, conveyed and assigned, and by way of further assurance does/do hereby transfer, convey and assign, any and all of ASSIGNOR(S)'s respective rights, title and interest in and to: the Invention; the Applications; inclusive of any and all priority rights, including the right to claim priority, derived from the Applications; any further applications for patent, design registration, utility model registration or other forms of protection, rights or titles for the whole or any part or parts of or improvements to the Invention in any country or countries ("Further Applications") together with the right to file divisional applications, substitute applications and

Page 1 of 7 V7.3

continuation applications of any one or more of the Applications and Further Applications ("Divisionals"); the right to obtain patents, design registrations, utility model registrations and all other forms of protection, rights and titles relating to the Invention; the right in and to any patent or reissue patent relating to the Applications, Further Applications and Divisionals ("Grants"); and the right to obtain any extensions / supplementary protection certificates ("Extensions"); together with the right to bring proceedings to recover damages and/or to obtain other remedies for acts committed in respect of one or more of the aforesaid Invention, Applications, Grants, Further Applications, Divisionals and Extensions, whether such acts are committed before or after the date of this Worldwide Assignment; with the intent that the Invention, Applications, Grants, Further Applications, Divisionals and Extensions are owned and enjoyed by ASSIGNEE absolutely to the full end of the term or terms for same.

ASSIGNOR(S) does/do hereby agree, upon request, to provide assistance and to execute any and all further documents, at the expense of ASSIGNEE and/or its successors and assigns (as applicable), which may be necessary or desirable to enable ASSIGNEE, and/or its successors and assigns (as applicable), to file, prosecute, bring proceedings and take other actions with respect to any and all of the Invention, Applications, Further Applications, Divisionals, Grants and Extensions, and any and all patents and registrations granted thereon and other forms of protection, rights and titles relating thereto, and ASSIGNOR(S) further agrees/agree to execute, upon request and at the expense of ASSIGNEE and/or its successors and assigns (as applicable), any and all further documents which may be necessary or desirable to vest or perfect the title of ASSIGNEE therein.

ASSIGNOR(S) does/do hereby authorize ASSIGNEE or its patent agents or attorneys to insert, above, the jurisdictions, application numbers, filing dates and any other indicia identifying the Applications when such information is available for the purpose of recording this assignment.

ASSIGNOR(S) does/do hereby authorize and request The Commissioner of Patents or any equivalent authority to issue to ASSIGNEE each and every patent, registration and other form of protection, right, and title granted upon the Applications, Further Applications, Divisionals and Extensions.

THIS WORLDWIDE ASSIGNMENT shall inure to the benefit of ASSIGNEE and its successors and assigns, and shall be binding upon ASSIGNOR(S) and their successors and permitted assigns.

DELIVERY of this Worldwide Assignment by copy, however transmitted, constitutes valid and effective delivery. This Worldwide Assignment may be executed in one or more counterparts, each of which when so executed and delivered shall be an original, and such counterparts shall together constitute one and the same instrument.

Page 2 of 7 V7.3

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
| BOULTON, Adam John  |
| 6 Waterford Road, Oxton, Wirral, CH43 6UT, United Kingdom   |
| STATEMENT BY WITNESS  |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. |
| (Signature of Witness)  |

Page 3 of 7 V7.3

| IN WITNESS WHEREOF, this Worldwide Assignment hundersigned:   | as been executed below by the       |
|---|-------------------------------------|
| Date:   |                                     |
| McCOURT, William James<br>Ground Floor, The Pearce Building, West Street,<br>Maidenhead, Berkshire,<br>SL6 1RL,<br>United Kingdom |                                     |
| STATEMENT BY WIT  | NESS                                |
| Ι,  | , whose full Post Office address is |
| (Address of Witnes  | s)                                  |
| hereby declare that I was personally present and did see the known to me to be a person named in the Worldwide Ass.               |                                     |
| Date:   | ·                                   |

Page 4 of 7 V7.3

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
| GODWOOD, Benjamin John 9 Hill Crescent, Finstock, Chipping Norton, OXON, OX7 3BT, United Kingdom  |
| STATEMENT BY WITNESS  |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. |
| (Signature of Witness)  |

Page 5 of 7 V7.3

| IN WITNESS WHEREOF, this Worldwide Assignment has been executed below by the undersigned:   |
|---|
| HIRST, Paul Compton Ground Floor, The Pearce Building, West Street, Maidenhead, Berkshire, SL6 1RL, United Kingdom  |
| STATEMENT BY WITNESS  |
| I,, whose full Post Office address is   |
| (Address of Witness)  |
| hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same. |
| Date:   |

Page 6 of 7 V7.3

| BlackBerry | Family | Ref. | No.: | 50429 |
|------------|--------|------|------|-------|
|------------|--------|------|------|-------|

| undersigned: |
|--------------|
|--------------|

London, N5 2LL, United Kingdom

| N Englis,         | Date: | į či | /11 | 10 |  |
|-------------------|-------|------|-----|----|--|
| FITZGIBBON, Niall |       | 1    |     |    |  |

## STATEMENT BY WITNESS

|       |            |       | ress of Witness |                                      |
|-------|------------|-------|-----------------|--------------------------------------|
| 13-2a | BLACKSTOCK | ROAD. | Longen,         | N5 244                               |
| ,     | ssica Auce | LEUE  | e               | _, whose full Post Office address is |

hereby declare that I was personally present and did see the above named person, personally known to me to be a person named in the Worldwide Assignment, duly sign and execute same.

|                        | Date: |
|------------------------|-------|
| (Signature of Witness) |       |

Page 7 of 7 V7.3