

PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

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| SUBMISSION TYPE:   | NEW ASSIGNMENT            |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
|--|---------------------------|---------------|--------------------------|---------------------|----------------------|-------------------|------------|-------|-----------|----------------|------------|--------------|-------|
| NATURE OF CONVEYANCE:  | ASSIGNMENT                |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| CONVEYING PARTY DATA   |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| <table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>ALLEN R. SAMUELS</td> <td>11/18/2004</td> </tr> <tr> <td>PAUL G. SUTTER</td> <td>04/15/2004</td> </tr> </tbody> </table>   |                           | Name          | Execution Date           | ALLEN R. SAMUELS    | 11/18/2004           | PAUL G. SUTTER    | 04/15/2004 |       |           |                |            |              |       |
| Name   | Execution Date            |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| ALLEN R. SAMUELS   | 11/18/2004                |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| PAUL G. SUTTER   | 04/15/2004                |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| RECEIVING PARTY DATA   |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| <table border="1"> <tr> <td>Name:</td> <td>ORBITAL DATA CORPORATION</td> </tr> <tr> <td>Street Address:</td> <td>1900 S. NORFOLK ST.,</td> </tr> <tr> <td>Internal Address:</td> <td>SUITE 320</td> </tr> <tr> <td>City:</td> <td>SAN MATEO</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>94403</td> </tr> </table> |                           | Name:         | ORBITAL DATA CORPORATION | Street Address:     | 1900 S. NORFOLK ST., | Internal Address: | SUITE 320  | City: | SAN MATEO | State/Country: | CALIFORNIA | Postal Code: | 94403 |
| Name:  | ORBITAL DATA CORPORATION  |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Street Address:  | 1900 S. NORFOLK ST.,      |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Internal Address:  | SUITE 320                 |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| City:  | SAN MATEO                 |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| State/Country:   | CALIFORNIA                |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Postal Code:   | 94403                     |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| PROPERTY NUMBERS Total: 1  |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14045543</td> </tr> </tbody> </table>  |                           | Property Type | Number                   | Application Number: | 14045543             |                   |            |       |           |                |            |              |       |
| Property Type  | Number                    |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Application Number:  | 14045543                  |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| CORRESPONDENCE DATA  |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Fax Number:<br>Email: ejahaj@foley.com<br><i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i><br>Correspondent Name: FOLEY AND LARDNER<br>Address Line 1: 111 HUNTINGTON AVE<br>Address Line 2: SUITE 2600<br>Address Line 4: BOSTON, MASSACHUSETTS 02199   |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| ATTORNEY DOCKET NUMBER:  | 099011-3412(CTX-289USCN3) |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| NAME OF SUBMITTER:   | CHRISTOPHER J. MCKENNA    |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Signature:   | /Christopher J. McKenna/  |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Date:  | 10/22/2013                |               |                          |                     |                      |                   |            |       |           |                |            |              |       |
| Total Attachments: 2<br>source=CTX_289US_Executed_Assignment#page1.tif<br>source=CTX_289US_Executed_Assignment#page2.tif   |                           |               |                          |                     |                      |                   |            |       |           |                |            |              |       |

OP \$40.00 14045543

ASSIGNMENT

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 **Orbital Data Corporation** a Delaware corporation, having a place of business at **1900 S. Norfolk St., Suite 320, San Mateo, CA 94403**, ("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 provisional application filed under 35 U.S.C. §111(b) or non-provisional application filed under 35 U.S.C. §111(a) and entitled **WAVEFRONT DETECTION AND DISAMBIGUATION OF ACKNOWLEDGEMENTS** ("APPLICATION"), which:

- is to be filed herewith  
 was filed on July 28, 2004,  
 now bearing U.S. application number 10/902,493; and

2. The entire worldwide right, title, and interest in and to:

(a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all 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, 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.

Title of Document: ASSIGNMENT

Re:  
Title: Wavefront Detection and Disambiguation of Acknowledgements  
Filed: July 28, 2004  
Serial No.: 10/902,493

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.

Name and Signature Allen R. Samuels Date of Signature 11/15/04  
Allen R. Samuels

State of \_\_\_\_\_  
County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared  
Allen R. Samuels personally known to me or proved to me on the basis of  
satisfactory evidence to be the person whose name is subscribed to the within instrument and  
acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her  
signature on the instrument the person, or the entity upon behalf of which the person acted, executed  
the instrument.

Notary Seal \_\_\_\_\_ Notary

Name and Signature Paul G. Sutter Date of Signature 6/15/04  
Paul G. Sutter

State of \_\_\_\_\_  
County of \_\_\_\_\_

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared  
Paul G. Sutter personally known to me or proved to me on the basis of satisfactory  
evidence to be the person whose name is subscribed to the within instrument and acknowledged to me  
that he/she executed the same in his/her authorized capacity, and that by his/her signature on the  
instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

Notary Seal \_\_\_\_\_ Notary