

PATENT ASSIGNMENT

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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>Jan-Michael Frahm</td> <td>07/03/2012</td> </tr> </tbody> </table>		Name	Execution Date	Jan-Michael Frahm	07/03/2012								
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>The University of North Carolina at Chapel Hill</td> </tr> <tr> <td>Street Address:</td> <td>Office of Technology Development</td> </tr> <tr> <td>Internal Address:</td> <td>222 East Cameron Avenue, 308 Bynum Hall, CB 4105</td> </tr> <tr> <td>City:</td> <td>Chapel Hill</td> </tr> <tr> <td>State/Country:</td> <td>NORTH CAROLINA</td> </tr> <tr> <td>Postal Code:</td> <td>27599-4105</td> </tr> </table>		Name:	The University of North Carolina at Chapel Hill	Street Address:	Office of Technology Development	Internal Address:	222 East Cameron Avenue, 308 Bynum Hall, CB 4105	City:	Chapel Hill	State/Country:	NORTH CAROLINA	Postal Code:	27599-4105
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
Fax Number:	(650)938-5200												
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NAME OF SUBMITTER:	Fengling Li												
Total Attachments: 2 source=21059_Assignment_Frahm#page1.tif source=21059_Assignment_Frahm#page2.tif													

CH \$40.00 13484127

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 The University of North Carolina at Chapel Hill, having a place of business at Office of Technology Development, 222 East Cameron Avenue, 308 Bynum Hall, CB 4105, Chapel Hill, NC 27599-4105 ("ASSIGNEE"), for itself and its successors, transferees, and assigns, 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. 13/484,127, entitled "Online Environment Mapping" filed on May 30, 2012, which claims priority from a provisional application, filed on May 31, 2011, now bearing U.S. Application No. 61/491,793.

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.

Title: Online Environment Mapping
Filed: May 30, 2012
Application No.: 13/484,127


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.

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

Date of Signature


Jan-Michael Frahm

July 3, 2012