

## 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>Matthias Grundmann</td><td>01/23/2009</td></tr><tr><td>Vivek Kwatral</td><td>01/23/2009</td></tr><tr><td>Mei Han</td><td>01/23/2009</td></tr></tbody></table>		Name	Execution Date	Matthias Grundmann	01/23/2009	Vivek Kwatral	01/23/2009	Mei Han	01/23/2009				
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Mei Han	01/23/2009												
RECEIVING PARTY DATA													
<table border="1"><tr><td>Name:</td><td>Google Inc.</td></tr><tr><td>Street Address:</td><td>1600 Amphitheatre Parkway</td></tr><tr><td>Internal Address:</td><td>Building 41</td></tr><tr><td>City:</td><td>Mountain View</td></tr><tr><td>State/Country:</td><td>CALIFORNIA</td></tr><tr><td>Postal Code:</td><td>94043</td></tr></table>		Name:	Google Inc.	Street Address:	1600 Amphitheatre Parkway	Internal Address:	Building 41	City:	Mountain View	State/Country:	CALIFORNIA	Postal Code:	94043
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
Fax Number: (650)938-5200 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
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NAME OF SUBMITTER:	Brian Hoffman												
Total Attachments: 3													

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## 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 **Google Inc.**, a Delaware corporation, having a place of business at 1600 Amphitheatre Parkway, Building 41, Mountain View, California 94043 ("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 **CONTENT-AWARE VIDEO RESIZING USING DISCONTINUOUS SEAM CARVING** ("APPLICATION"), which:

☒ was filed on **January 16, 2009**, and now bears U.S. application serial number **12/355,494**.

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.

Title: Content-Aware Video Resizing Using Discontinuous Seam Carving  
Filed: January 16, 2009  
Application No.: 12/355,484

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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  
  
Matthias Grundmann

Date of Signature  
01/23/2009

Name and Signature  
  
Vivek Kwatra

Date of Signature  
  
2009

Name and Signature  
  
Mei Han

Date of Signature  
  
2009

Title: **Content-Aware Video Resizing Using Discontinuous Seam Carving**  
Filed: **January 16, 2009**  
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Name and Signature

Date of Signature

Matthias Grundmann

,2009

Name and Signature

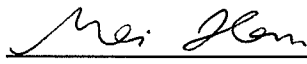
Date of Signature

  
**Vivek Kwatra**

Jan 23 ,2009

Name and Signature

Date of Signature

  
**Mei Han**

Jan 23 ,2009