# Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVE	YANCE:	ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY	DATA	<u>.</u>			
		Name	Execution Date		
Michael Burrows			08/05/2005		
Fay Wen Chang			08/05/2005		
Jeffrey A. Dean			08/05/2005		
Andrew B. Fikes			11/01/2005		
Sanjay Ghemawat			08/05/2005		
Wilson C. Hsieh			09/01/2005		
Deborah Anne Walla	ch		08/05/2005		
Street Address:	1600 Amphit	1600 Amphitheatre Parkway			
RECEIVING PARTY I					
Name:		Google Inc.			
Internal Address:		Building 41			
City:		Aountain View			
State/Country: Postal Code:	94043				
Fostal Code.	94043				
PROPERTY NUMBEI	RS Total: 1				
Property Type		Num	ber		
		11197925			
CORRESPONDENCE	E DATA				
Fax Number:	(650)84	3-4001			
	. ,	Mail when the fax attempt is unsucces	sful.		
Phone:	650-843-4000				
Email:	bgemel	bgemello@morganlewis.com			
Correspondent Name	ondent Name: Gary S. Williams				
Conceptingent Name	Address Line 1: 3000 El Camino Real, Suite 700				
Address Line 1:	3000 EI	Camino Real, Suite 700			
	2 Palo /	Camino Real, Suite 700 Alto Square ∞, CALIFORNIA 94306			

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ATTORNEY DOCKET NUMBER:	60963-5147-US
NAME OF SUBMITTER:	Gary S. Williams
Total Attachments: 4 source=60963-5147 assign#page1.tif source=60963-5147 assign#page2.tif source=60963-5147 assign#page3.tif source=60963-5147 assign#page4.tif	

JOINT

#### ASSIGNMENT

WHEREAS, WE, Michael Burrows, citizen of the United Kingdom, residing in Palo Alto, California; Fay Wen Chang, citizen of the United States, residing in Greenwich, Connecticut; Jeffrey A. Dean, citizen of the United States, residing in Palo Alto, California; Andrew B. Fikes, citizen of the United States, residing in Los Altos, California; Sanjay Ghemawat, citizen of the United States, residing in Mountain View, California; Wilson C. Hsieh, citizen of the United States, residing in New York, New York; and Deborab Anne Wallach, citizen of the United States, residing in Mountain View, California, ASSIGNORS, are the inventors of the invention in LARGE SCALE DATA STORAGE IN SPARSE TABLES, for which we have executed an application for a Patent of the United States

- is which is executed on is even date herewith or
- Which is identified by Morgan, Lewis & Bockius LLP docket no. 60963-5147-US
- which was filed on \_\_\_\_\_, Application No. \_\_\_\_\_\_
- We hereby authorize and request our attorney, Gary S. Williams, of Morgan, Lewis & Bockius, LLP, to insert here in parentheses (Application number, 11197, 925 filed 915, 2005) the filing date and application number of said application when known.

and WHEREAS, Google Inc., ASSIGNEE, having a place of business at 1600 Amphitheatre Pkwy., Building 41, Mountain View, CA 94043-1351, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigna, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Parents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIONEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and scals the day and year set opposite our respective signatures.

Date	Angust 5	, 2005	Michael Burrows	_L.S.
Date	Angust 5	, 2005	Fay W. Chang	_L. <b>S</b> .
Date	August 5	, 2005	Jeffrey A. Dean	_L.S.
Date		, 2005	Andrew B. Fikes	_L.S.
I-PA/	3554333.1			

PATENT REEL: 016716 FRAME: 0082

JOINT

### ASSIGNMENT

WHEREAS, WE, Michael Burrows, citizen of the United Kingdom, residing in Palo Alto, California; Fay Wen Chang, citizen of the United States, residing in Greenwich, Connecticut; Jeffrey A. Dean, citizen of the United States, residing in Palo Alto, California; Andrew B. Fikes, citizen of the United States, residing in Los Altos, California; Sanjay Ghemawat, citizen of the United States, residing in Mountain View, California; Wilson C. Hsleh, citizen of the United States, residing in New York, New York; and Deborah Anne Wallach, citizen of the United States, residing in Mountain View, California, ASSIGNORS, are the inventors of the invention in LARGE SCALE DATA STORAGE IN SPARSE TABLES, for which we have executed an application for a Patent of the United States

- even date herewith or which is executed on
- which is identified by Morgan, Lewis & Bockius LLP docket no. 60963-5147-US 00
- which was filed on August 5, 2005, Application No. 11/197,925
- We hereby authorize and request our attorney, Gary S. Williams, of Morgan, Lewis & Bockius, LLP, to insert here in parentheses (Application number,  $\frac{11197925}{1197925}$  filed  $\frac{8152005}{2005}$ ) the filing date and application number of said application when known.

and WHEREAS, Google Inc., ASSIGNEE, having a place of business at 1600 Amphitheatre Pkwy., Building 41, Mountain View, CA 94043-1351, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Commissioner of Patents and Trademarks of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereinto set our hands and seals the day and year set opposite our respective signatures.

Date		_, 2005	Michael Burrows	_L,S.
Date		_, 2005	Fay Wen Chang	_L.S.
Date		_, 2005	Jeffrey A. Dean	_L.S.
Date	11/01/05	_, 2005	Andrew B. Fikes	_L.\$.
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PATENT REEL: 016716 FRAME: 0083 MORGAN, LEWIS & BOCKIUS LLP DOCKET NO. 60963-5147-US



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Sanjay Ohomawat	0	

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Wilson C. Hsich		
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		L.S.

Deborah Anne Wallach

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### PATENT REEL: 016716 FRAME: 0085

**RECORDED: 11/01/2005**