

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

| 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>Wen-Syan Li</td> <td>09/23/2013</td> </tr> <tr> <td>Bin Dong</td> <td>09/16/2013</td> </tr> <tr> <td>Zheng Long Wei</td> <td>09/16/2013</td> </tr> <tr> <td>Yingyu Chen</td> <td>09/13/2013</td> </tr> <tr> <td>Yongyuan Shen</td> <td>09/17/2013</td> </tr> </tbody> </table> | | Name | Execution Date | Wen-Syan Li | 09/23/2013 | Bin Dong | 09/16/2013 | Zheng Long Wei | 09/16/2013 | Yingyu Chen | 09/13/2013 | Yongyuan Shen | 09/17/2013 |
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| RECEIVING PARTY DATA | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Name:</td> <td>SAP AG</td> </tr> <tr> <td>Street Address:</td> <td>Dietmar-Hopp-Allee 16</td> </tr> <tr> <td>City:</td> <td>Walldorf</td> </tr> <tr> <td>State/Country:</td> <td>GERMANY</td> </tr> <tr> <td>Postal Code:</td> <td>69190</td> </tr> </table> | | Name: | SAP AG | Street Address: | Dietmar-Hopp-Allee 16 | City: | Walldorf | State/Country: | GERMANY | Postal Code: | 69190 | | |
| Name: | SAP AG | | | | | | | | | | | | |
| Street Address: | Dietmar-Hopp-Allee 16 | | | | | | | | | | | | |
| City: | Walldorf | | | | | | | | | | | | |
| State/Country: | GERMANY | | | | | | | | | | | | |
| Postal Code: | 69190 | | | | | | | | | | | | |
| 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>14033203</td> </tr> </tbody> </table> | | Property Type | Number | Application Number: | 14033203 | | | | | | | | |
| Property Type | Number | | | | | | | | | | | | |
| Application Number: | 14033203 | | | | | | | | | | | | |
| CORRESPONDENCE DATA | | | | | | | | | | | | | |
| <p>Fax Number: 6123328352 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-470-6454 Email: lisa@brakehughes.com Correspondent Name: Brake Hughes Bellermann LLP Address Line 1: c/o CPA Global Address Line 2: PO Box 52050 Address Line 4: Minneapolis, MINNESOTA 55402</p> | | | | | | | | | | | | | |
| ATTORNEY DOCKET NUMBER: | 0045-056001/130374US01 | | | | | | | | | | | | |
| NAME OF SUBMITTER: | Joseph F. Key | | | | | | | | | | | | |

OP \$40.00 14033203

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|---|---------------------------------|
| Signature: | /Joseph F. Key, Reg. No. 44827/ |
| Date: | 09/23/2013 |
| Total Attachments: 3 source=0045-056001_ExecutedAssignment#page1.tif source=0045-056001_ExecutedAssignment#page2.tif source=0045-056001_ExecutedAssignment#page3.tif | |

ASSIGNMENT

WHEREAS, We, Wen-Syan Li, residing in Fremont, CA, and Bin Dong, residing in Shanghai, China, and Zheng Long Wei, residing in Shanghai, China, and Yingyu Chen, residing in Shanghai, China, and Yongyuan Shen, residing in Shanghai, China, made certain new and useful inventions and improvements for which we filed an application for Letters Patent of the United States entitled DATABASE OPERATIONS ON A COLUMNAR TABLE DATABASE;

WHEREAS, We hereby authorize and request the attorneys at Brake Hughes Bellermann LLP, to insert here in parentheses (Ser. No. 14/033,203 ; Filing Date: September 20, 2013) the filing date and application number of said application when known.

AND WHEREAS, SAP AG, a corporation organized and existing under and by virtue of the laws of Germany, and having an office and place of business at Dietmar-Hopp-Allee 16, Walldorf, 69190 Germany (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefore;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, I have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, continuations-in-part, or renewals thereof, all Letters Patent which may be granted there from, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted there from; and I do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to

the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, I do hereby agree that I and my executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to me relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore, I covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me.


IN TESTIMONY WHEREOF, I have hereunto set my hand this 23rd day of Sep, 2013.

Wen-Syan Li
Wen-Syan Li

Witness Signature

Witness (Print Name)

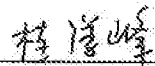
IN TESTIMONY WHEREOF, I have hereunto set my hand this 16 day of sep., 2013.



Bin Dong



Witness Signature

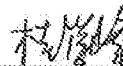


Witness (Print Name)

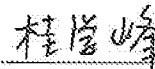
IN TESTIMONY WHEREOF, I have hereunto set my hand this 16th day of September, 2013.



Zheng Long Wei



Witness Signature



Witness (Print Name)

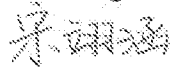
IN TESTIMONY WHEREOF, I have hereunto set my hand this 13 day of Sept, 2013.



Yingyu Chen



Witness Signature



Witness (Print Name)

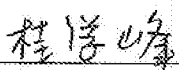
IN TESTIMONY WHEREOF, I have hereunto set my hand this 17th day of September, 2013.



Yongyuan Shen



Witness Signature



Witness (Print Name)