

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>Michael John Novak</td> <td>04/25/2013</td> </tr> <tr> <td>Chris Guzak</td> <td>04/25/2013</td> </tr> <tr> <td>Sangeeta Ranjit</td> <td>04/24/2013</td> </tr> <tr> <td>Scott David Hoogerwerf</td> <td>04/23/2013</td> </tr> <tr> <td>Amnon Itamar Govrin</td> <td>04/23/2013</td> </tr> <tr> <td>Marc Wautier</td> <td>04/23/2013</td> </tr> <tr> <td>Kieron Reiniger</td> <td>04/24/2013</td> </tr> <tr> <td>Kyle Thomas Beck</td> <td>04/24/2013</td> </tr> <tr> <td>Tyler Kien Beam</td> <td>04/23/2013</td> </tr> <tr> <td>Oded Yehuda Shekel</td> <td>04/26/2013</td> </tr> <tr> <td>Relja Ivanovic</td> <td>04/24/2013</td> </tr> </tbody> </table>		Name	Execution Date	Michael John Novak	04/25/2013	Chris Guzak	04/25/2013	Sangeeta Ranjit	04/24/2013	Scott David Hoogerwerf	04/23/2013	Amnon Itamar Govrin	04/23/2013	Marc Wautier	04/23/2013	Kieron Reiniger	04/24/2013	Kyle Thomas Beck	04/24/2013	Tyler Kien Beam	04/23/2013	Oded Yehuda Shekel	04/26/2013	Relja Ivanovic	04/24/2013
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<table border="1"> <tr> <td>Name:</td> <td>Microsoft Corporation</td> </tr> <tr> <td>Street Address:</td> <td>One Microsoft Way</td> </tr> <tr> <td>City:</td> <td>Redmond</td> </tr> <tr> <td>State/Country:</td> <td>WASHINGTON</td> </tr> <tr> <td>Postal Code:</td> <td>98052</td> </tr> </table>		Name:	Microsoft Corporation	Street Address:	One Microsoft Way	City:	Redmond	State/Country:	WASHINGTON	Postal Code:	98052														
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CORRESPONDENCE DATA																									
Fax Number:	4259367329																								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																									
Phone:	425-707-9382																								
Email:	vffiling@microsoft.com																								
Correspondent Name:	Assal Meftahi																								

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Address Line 4: Redmond, WASHINGTON 98052

ATTORNEY DOCKET NUMBER: 339010.01

NAME OF SUBMITTER: Vikas Khanna

Signature: /Vikas Khanna/

Date: 04/30/2013

Total Attachments: 22

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I, Michael John Novak ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

☒ will be filed. ASSIGNOR hereby authorizes, and requests, ASSIGNEE'S legal representatives, of the Law and Corporate Affairs Department, Microsoft Corporation, One Microsoft Way, Redmond, Washington 98052 (ASSIGNEE'S LEGAL REPRESENTATIVES), to insert here in parentheses (filed on 30-APR-2013 and given Application No. 13/873264 by the following Office US Patent and Trademark Office) this APPLICATION's Application No., filing date, and Office, when known;

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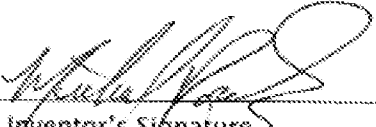
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 Inventor's Signature	<u>4/25/2013</u> Date
<u>Michael John Novak</u> Printed Name in English	 Printed Name in Native Language (if other than English)

I, Chris Guzak ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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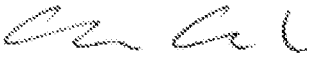
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	<u>4-25-2013</u>
Inventor's Signature	Date
<u>Chris Guzak</u>	
Printed Name in English	Printed Name in Native Language (if other than English)

I, Sangeeta Ranjit ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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<u>Ranjit</u>	<u>4/24/2013</u>
Inventor's Signature	Date
<u>Sangeeta Ranjit</u>	
Printed Name in English	Printed Name in Native Language (if other than English)

I, Scott David Hoogerwerf ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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Inventor's Signature

4/23/13

Date

Scott David Hoogerwerf

Printed Name in English

Printed Name in Native Language
(if other than English)

I, Amnon Itamar Govrin ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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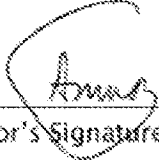
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	<u>4/23/2013</u>
Inventor's Signature	Date
<u>Amnon Itamar Govrin</u>	<u>אִמָּנוֹן אִיתָמָר גֻּבְרִין</u>
Printed Name in English	Printed Name in Native Language (if other than English)

I, Marc Wautier ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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 _____ Inventor's Signature	<u>6/23/13</u> _____ Date
<u>Marc Wautier</u> _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

I, Kiernon Reiniger ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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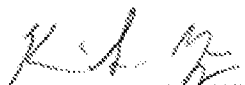
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	<u>4/24/13</u>
Inventor's Signature	Date
Kiernon Reiniger	
Printed Name in English	Printed Name in Native Language (if other than English)

I, Kyle Thomas Beck ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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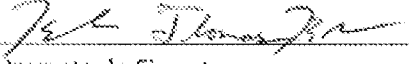
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	<u>4-24-13</u>
Inventor's Signature	Date
<u>Kyle Thomas Beck</u>	
Printed Name in English	Printed Name in Native Language (if other than English)

I, Tyler Kien Beam ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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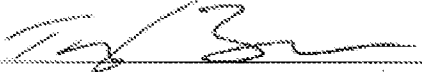
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	<u>2013/04/23</u>
Inventor's Signature	Date
<u>Tyler Kien Beam</u>	
Printed Name in English	Printed Name in Native Language (if other than English)

I, Oded Yehuda Shekel ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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 _____ Inventor's Signature	<u>04/26/13</u> _____ Date
<u>Oded Yehuda Shekel</u> _____ Printed Name in English	_____ Printed Name in Native Language (if other than English)

I, Relja Ivanovic ("ASSIGNOR"), am the original inventor or an original joint inventor of subject matter ("INVENTION") disclosed and/or claimed in a patent application entitled "SEARCHING AND PLACEHOLDERS" ("APPLICATION"), which:

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For good and valuable consideration, the receipt of which is hereby acknowledged by the ASSIGNOR, the ASSIGNOR hereby sells, assigns and transfers to

the ASSIGNEE, ASSIGNOR's entire and exclusive rights, title and interest in the INVENTION and the APPLICATION (and APPLICATION DERIVATIVES);

ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of the APPLICATION (and APPLICATION DERIVATIVES), for litigation regarding letters patent derived therefrom, and for the purpose of protecting and perfecting title to the APPLICATION (and APPLICATION DERIVATIVES).

	9/24/13
Inventor's Signature	Date
Relja Ivanovic	PENAR UBANOBUTH
Printed Name in English	Printed Name in Native Language (if other than English)