| FORM PTO-1619A<br>Expires 06/30/99<br>OMB 0651-0027   | 06 - 28 - 2001   | U.S. Departmentof<br>Commerce O<br>PATENT  |
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| Le (10 0)<br>TO: The Commissioner of Patents and  | 101763535<br>PATENTS ONL   | SHEET  |
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| Name (line 1)       Zhengyou Zhang         Name (line 2)  | M  | 5/11/2001<br>Execution Date<br>Month Day Year<br>5/14/01<br>Markif additional namesof receivingparties<br>If document to be recorded<br>is an assignment and the   |
| Name (line 2) Address (line 1) One Microsoft Way Address (line 2) Address (line 3) Redmond  | WA   | receiving party is not<br>domiciled in the United<br>States, an appointment<br>of a domestic<br>representative is attached.<br>(Designation must be a<br>separate document from<br>Assignment.)<br>94052   |
| City<br>Domestic Representative Nar<br>Name   | State/Country<br>me and Address Enter                            | zip Code   |
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| gathering the data needed to complete the Cover Sheet.<br>D.C. 20231 and to the Office of Information and Regu<br>Information Collection Budget Package 0651-0027, Patent<br>Mail docume  | Send comments regarding this burden estimate to the l            | per Cover Sheet to be recorded, including time for reviewing the document i<br>U.S. Patent and Trademark Office, Chief Information Officer, Washington,<br>Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See O<br>REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.<br>ver sheet(s) information to:<br>anments, Washington, D.C. 20231 |

| FORM PTO-<br>Expires 06/30/99<br>OMB 0651-0027  | 1619B  | Page 2   | U.S. Departmentof<br>Commerce<br>PATENT   |
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| Correspond  | dent Name and Address  | Area Code and Telephone Number   | 805-278-8855  |
| Name  | Katrina A. Lyon  |  |   |
| Address (line   | LYON, HARR & DEFRANK, LLP  | ······   |   |
| Address (line   | 300 Esplanade Drive, Suite800  |  |   |
| Address (line   |  |  |   |
| Address (line   | Oxnard, CA 93030   |  |   |
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|   |  | uthorization to charge additional fees:  | Yes No  |
| Statement a   | Ind Signature  |  |   |
| attach<br>indica  | e best of my knowledge and belie<br>red copy is a true copy of the ori-<br>ited herein.<br>Katrina A. Lyon<br>ne of Person Signing | ef, the foregoing information is true and<br>ginal document. Charges to deposit ad<br>Caturo Gyph<br>Signature | d correct and any<br>ccount are authorized, as<br>(G/して/して<br><br>Date                          |

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| Conveying                                      | Party(ies)                             | Markif additional namesof conve                              | ying parties   |
|  | Conveying Parties                      |  | Execution Date<br>Month Day Year   |
| Name (line 1)                                  | Steven A. N. Shafer                    |  | 05/22/2001   |
| Name (line 2)                                  |  |  | Execution Date<br>Month Day Year   |
| Name (line 1)                                  | Ying Wu                                |  | Month Day Year<br>06/08/2001   |
| Name (line 2)                                  |  |  | Execution Date   |
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| Receiving P                                    | arty                                   | Markif additional n  | amesof receivingparties  |
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| Address (line 1)                               |  |  | representative is attached.<br>(Designation must be a<br>separate document from              |
| Address (line 2)                               |  |  | Assignment.)   |
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PATENT Microsoft Docket No. 163202.1 LH&D No. MCS-077-00

## ASSIGNMENT

WHEREAS, we,

Zhengyou Zhang 10090 177th Ave NE Redmond, WA 98052

Ying Shan 25-04 Pheasant Hollow Drive Plainsboro, NJ 08536

> Steven A.N. Shafer 1314 Fifth Ave. West Seattle, WA 98119

Ying Wu 605 E. White, # D32 Champaign, IL 61801

(hereinafter referred to as ASSIGNORS) are the joint inventors of an invention entitled "SYSTEM AND METHOD FOR PROVIDING A MOBILE INPUT DEVICE", as described and claimed in the specification forming part of an application for United States letters patent executed herewith;

WHEREAS, Microsoft Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Washington having a place of business at One Microsoft Way, Redmond, WA 98052, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE

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and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

1) FIRST ASSIGNOR

State of WA

Zhengyou Zhang

Dated: 5/11/2001

County of  $\underline{K_{1na}}_{0}$  On this  $\underline{114h}_{0}$  day of  $\underline{M_{na}}_{0}$ , 2001, before me, a Notary Public in and for the State and County aforesaid, personally appeared Zhengyou Zhang, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

2) SECOND ASSIGNOR

Dated:

Ying Shan

State of \_\_\_\_\_ County of \_\_\_\_\_

On this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_\_\_, before me, a Notary Public in and for the State and County aforesaid, personally appeared Ying Shan, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

Notary Public

and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

1) FIRST ASSIGNOR

Dated:

Zhengyou Zhang

State of \_\_\_\_\_ County of

On this \_\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, before me, a Notary Public in and for the State and County aforesaid, personally appeared Zhengyou Zhang, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

Notary Public

2) SECOND ASSIGNOR

Ying Shan

State of <u>New Jersey</u> County of <u>Murcer</u>

Dated: 05/14/0/

On this 14rh day of May, 2001, before me, a Notary Public in and for the State and County aforesaid, personally appeared Ying Shan, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

In Delta

Notary Public

TAMMY L. DEVITIS Notary Public of New Jersey My Commission Expires July 17, 2005

> PATENT REEL: 011924 FRAME: 0441

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| 3) <u>THIRD ASSIGNOR</u>   | 0               |                         |  |
|--|-----------------|-------------------------|--|
| Steren A.N. Sk   | Yer             | Dated: 22 Ma            | 042001   |
| Steven A.N. Shafer   |                 |                         |  |
| State of <u>WA</u><br>County of <u>King</u>                                | - 1             |                         |  |
| On this $22$<br>Public in and for the State a<br>Shafer, known to me to be |                 |                         |  |
| instrument, and who ackno<br>day and year aforesaid.                       | wledged that he | that                    | act on his behalf, on the                                |
| 4) <u>FOURTH ASSIGNOR</u>  |                 | Notary Públic<br>Dated: | PUBLIC<br>PUBLIC<br>PUBLIC<br>PUBLIC<br>PUBLIC<br>PUBLIC |
| Ying Wu  |                 |                         | 11/1/10/201  |
| State of<br>County of  | _               |                         |  |
| On this  | day of          | , 20                    | , before me, a Notary                                    |

Public in and for the State and County aforesaid, personally appeared Ying Wu, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

Notary Public

## 3) THIRD ASSIGNOR

Dated:

Steven A.N. Shafer

State of \_\_\_\_\_ County of \_\_\_\_\_

On this \_\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, before me, a Notary Public in and for the State and County aforesaid, personally appeared Steven A.N. Shafer, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

Notary Public

4) FOURTH ASSIGNOR Yina Wu

State of \_\_\_\_\_\_ County of \_\_\_\_\_\_

7\_\_\_\_\_ Dated: \_\_\_6/8/200/

On this \_\_\_\_\_\_ day of \_\_\_\_\_\_, 20<u>01</u>, before me, a Notary Public in and for the State and County aforesaid, personally appeared Ying Wu, known to me to be the person of that name, who signed the foregoing instrument, and who acknowledged that he signed it as a free act on his behalf, on the day and year aforesaid.

Carolyn A Johnson Notary Public

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|---------------------------------|---|
| GEFICIAL SEAL                   | • |
| CAROLYNA JOHNSON                | 2 |
| NOTARY PUBLIC STATE OF ILLINOIS | Ż |
| MY COMMISSION EXPIRES 8/15/03   | ź |
| mmmmm                           | , |

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**RECORDED: 06/10/2001**