| 10-23-2003 — | | |
|---|---|--|
| PATEN | Attorney Docket No. M61.12-0547 | |
| To the Honorable 102581614 | ent and Trademark Office: Please record the | |
| 1. Name of conveying party(ies): (1) Zicheng Liu (2) Baining Guo (3) Heung-Yeung Shum (4) Qingshan Zhang Additional name(s) of conveying party(ies) attached? [] Yes [X] No | 2. Name and address of receiving party(ies): Name: Microsoft Corporation Internal Address: One Microsoft Way City Redmond State WA ZIP 98052 | |
| | Additional name(s) & address(es) attached? [] Yes [X] No | |
| 3. Nature of Conveyance: [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date:1) Oct. 9, 2003; 2) Oct. 13, | | |
| 2003; 3) Oct. 13, 2003; 4) Oct. 12, 2003 | | |
| 4A. Application No.(s) | 4B. Patent No.(s) | |
| If this document is being filed together with a new application, the execution date(s) of the application is: 1) Oct. 9, 2003; 2) Oct. 13, 2003; 3) Oct. 13, 2003; 4) Oct. 12, 2003 | Additional numbers attached? [] Yes [X] No | |
| Additional numbers attached? [] Yes [X] No | | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Steven M. Koehler Street Address: Westman, Champlin & Kelly, P.A Suite 1600 International Centre 900 Second Avenue South City: Minneapolis State: MN ZIP 55402 | 6. Total number of applications and patents involved: [1] | |
| | 7. Total fee (37 CFR 3.41):\$ 40.00 | |
| 20/2003 YPOLITE1 00000076 10684773 FC:8021 40.00 OP | 8. Method of Payment [X] Enclosed [X] The Director is authorized to charge payment of any additional recording fees or credit any overpayment to deposit account No. 23-1123. | |
| DO NOT USE THI | S SPACE | |
| 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Steven M. Koehler Name of Ferson Signing | | |
| Signature Date | Total number of pages submitted: [7] | |
| | | |

PATENT REEL: 014602 FRAME: 0062

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Serial Number | *************************************** |
|--|---|
| Filing Date | HEREWITH |
| rining Date | Zicheng Liu et al. |
| Inventorship | Minnest Comoration |
| Applicant | Wheroson Corpulation |
| Attorney's Docket No. | |
| MS Docket No. | 303775.01 |
| | |
| Title: GEOMETRY-DRIVEN IMAGE SYNTHESIS RENDERING | |

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Zicheng Liu 14743 SE 63rd Street Bellevue, Washington 98006

Baining Guo
Apt 202, Bldg. #8, Tai Yue Yuan
Haidian District
Beijing, China 100086

Heung-Yeung Shum Villa 43B, Beijing Reveria Chaoyang District Beijing, China 100103

Qingshan Zhang R&D Center, Huawei Base Bantian Industry Zone Longgang, Shenzhen China 518129

Assignee:

Microsoft Corporation Corporation in the State of Washington One Microsoft Way Redmond, WA 98052

AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled "GEOMETRY-DRIVEN IMAGE SYNTHESIS RENDERING", as described and claimed in the specification forming part of an application for United States letters patent referenced above;

PATENT REEL: 014602 FRAME: 0063

Attorney Docket No. Mol.12-034/ MS Docket No. 303775.01 Serial No. (if known)

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 therefore 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, ASSIGNOR(S) hereby sell, assign and transfer unto 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 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 ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) 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 therefore.

| Date | Qingshan Zhang | · |
|-------------------|------------------|---|
| | | |
| Date | Heung-Yeung Shum | |
| | | |
| Date | Baining Guo | |
| | | |
| 10/9/2003 Date | Zicheng Liu | |
| 1 2 2 | 2.1/2.1. | |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Serial Number | ##*#A.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|--|--|
| Filing Date | HEREWITH |
| Inventorship | Zichene Liu et al. |
| Applicant | Microsoft Corporation |
| Attorney's Docket No. | M61 12-0547 |
| MS Docket No. | |
| Title: GEOMETRY-DRIVEN IMAGE SYNTHESIS RENDERING | |

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Zicheng Liu 14743 SE 63rd Street Bellevue, Washington 98006

Baining Guo Apt 202, Bldg. #8, Tai Yue Yuan Haidian District Beijing, China 100086

Heung-Yeung Shum Villa 43B, Beijing Reveria Chaoyang District Beijing, China 100103

Qingshan Zhang R&D Center, Huawei Base Bantian Industry Zone Longgang, Shenzhen China 518129

Assignee:

Microsoft Corporation Corporation in the State of Washington One Microsoft Way Redmond, WA 98052

AGREEMENT

WHEREAS, ASSIGNOR(S) (listed above) are inventor(s) of an invention entitled "GEOMETRY-DRIVEN IMAGE SYNTHESIS RENDERING", as described and claimed in the specification forming part of an application for United States letters patent referenced above;

PATENT REEL: 014602 FRAME: 0066

Attorney Docket No. M61.12-0547 M5 Docket No. 303775.01 Serial No. (if known)

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 therefore 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, ASSIGNOR(S) hereby sell, assign and transfer unto 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 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 ASSIGNOR(S) had this assignment, transfer and sale not been made. ASSIGNOR(S) hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR(S) 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 therefore.

Page 2 of 3

| Date | Zicheng Liu |
|--------------------|------------------|
| 10/13/2003 Date | Satining Guo |
| Oct.13, 2023 Date | Heung-Yeung Shum |
| Date | Qingshan Zhang |

| Date | Zicheng Liu |
|--------------|----------------------|
| Date | Baining Guo |
| Date | Heung-Yeung Shum |
| Oct. 12 2003 | Qinashan Ihana (社主山) |

Qingshan Zhang

Page 4 of 4

PATENT REEL: 014602 FRAME: 0069

Date