		09-18-199	98	U.S.DEPARTMENT OF COMMERCE Patent and Trademark Office		
	REC					
		100833537	7 Attv.	Docket No.: MS-33/3(115202.1)		
	To the Honorable Commissione of Patents and Trademarks: Please record the attached original documents or copy thereof 1. Name of conveying party(ies): 2. Name and address of receiving party(ies):					
$\mathscr{C}_{\mathcal{S}}$	Heung-Yeung SHUM SP 1 1 1998	Name: Mic	Name: Microsoft Corporation			
19	Mei HAN	Address:				
86/11/6	Richard S. SZELISKI	Street Addre	ess: One Microsoft	Way		
9	Additional name(s) of conveying party(ies) attached? Yes	XX No				
\mathcal{Q}	3. Nature of conveyance:	City: Redm	City: Redmond State: WA ZIP: 98052			
ME	XX Assignment Merger Security Agreement Change of Nam Other	ie				
	Execution Date: August 10, 1998 and August 20,		Additional name(s) & address(es) attached? Yes XX No			
	Application number(s) or patent number(s):	application number(s) or patent number(s):				
1	If this document is being filed together with a new application, the execution date of the application is:					
	A. Patent Application No.(s) 09/099,097 B. Patent No.(s)					
Additional numbers attached? Yes XX No						
	5. Name and address of party to whom correspondence	6. Total num	ber of applications and	t patents involved: 1		
	concerning document should be mailed:		7. Total fee (37 CFR 3.41) <u>\$ 40.00</u>			
	Name: Peter L. Michaelson, Esq.		ided with Filing Fe			
	MICHAELSON & WALLACE			uired are authorized to be		
	<u>Customer No. 007265</u>	char	ged to the deposit	account listed below.		
	Internal Address: PO Box 8489					
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	City: Red Bank State: NJ ZIP: 07701		plicate copy of this pag	ge if paying by deposit account)		
	DO NOT USE THIS 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					
1	Peter L. Michaelson John L Medicanta September 8, 1998					
/09/	99/16/1998 NOTIFIE OF \$1507 Signing					
(05	TC:581 40.00 CH	•	mber of pages compris	sing cover sheet plus assignment: 4		
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	Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time to reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding the burden estimate to the U.S. Patent and Trademark Office, Office of information Systems, PK2-1000C, Washington, D.C. 20231, and to the O of Management and Budget, Paperwork Reduction Project (0651-0011), Washington, D.C. 20503.					

PATENT REEL: 9452 FRAME: 0954

ASSIGNMENT

WHEREAS, we, Heung-Yeung SHUM, Mei HAN and Richard S.

SZELISKI (hereinafter referred to as ASSIGNORS), having post office address of 3515 167th Place N.E., Bellevue, WA 98005;

5530 Fifth Ave. # 10B. Pittsburgh. PA 15232 and 2602 131st Place SE

Bellevue, WA 98005, respectively, are the joint inventors of an invention entitled:

INTERACTIVE CONSTRUCTION AND REFINEMENT OF 3D MODELS FROM PANORAMIC IMAGES

as described and claimed in the specification forming part of an application for United States letters patent filed <u>June 18, 1998</u> and assigned Serial No. <u>09/099,097</u>;

WHEREAS, <u>Microsoft Corporation</u> (hereinafter referred to as ASSIGNEE), a corporation of the State of <u>Washington</u> having a place of business at <u>One Microsoft Way, Redmond, WA 98052</u>, 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 goods 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,

-1-

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 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 TESTIMONY WHEREOF, I hereunto set my hand and seal this day of august, 1948.
hyhm
Heung-Yeung SHUM, ASSIGNOR
State of Washington : ss County of King :
County of Kime :
On this day of August, 1998, before me, a Notary Public in and for the State and County aforesaid, personally appeared Heung-Yeung SHUM, known to me to
be the person of that name, who signed and sealed the foregoing
instrument, and acknowledged the same to be his/her free act and
deed

PATENT REEL: 9452 FRAME: 0956

110: 10:
Mei HAN, ASSIGNOR
Dumonwealth
State of Vennsylvanis :
County of Allegung :
On this day of August, 1998, before me, a Notary Public in and for the State and County
19 9 %, before me, a Notary Public in and for the State and County
aforesaid, personally appeared Mei HAN, known to me to be the person of that name, who signed and sealed the foregoing
instrument, and acknowledged the same to be his/her free act and
deed.
Marcie Mestracci
Wards Mass and hand State Plantage of the Action of the County We demand the object Rev. 8, 1909 Notary Public
Merchen, Franklyhopia Association of Novanes
IN TESTIMONY WHEREOF, I hereunto set my hand and seal this
<u>10</u> day of <u>Rugust</u> , 19 <u>98</u> .
V
Richard S. Szelviln.
Richard S. SZELYSKI, ASSIGNOR
·
State of working : ss
County of + :
On this low day of August,
1998, before me, a Notary Public in and for the State and County
aforesaid, personally appeared <u>Richard S. SZELISKI</u> , known to me to be the person of that name, who signed and sealed the
foregoing instrument, and acknowledged the same to be his/her
free agamand deed.
SETTING SION ELSON
Notary Public Hornson
O PUBLIC S. S.
-3-
WASH IN

RECORDED: 09/11/1998

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 20 day of Augus, 1998.

PATENT REEL: 9452 FRAME: 0957