FORM PTO-1619A Expires 06/30/99 OMB 0651-0027

12-28-2001



101926966

U.S. Department of Commerce Patent and Trademark Office **PATENT**

RECORDATION FORM COVER SHEET

		AIENIS UNLI		
TO: The Comm	issioner of Patents and Trademarks	: Please record the attached orig	inal document(s) or copy	((ies).
Submission	Type 1 A	Conveyance Type		
✓ New	mrd 12/13/01		curity Agreement	
Resubmis Documen	ssion (Non-Recordation) t ID#	License Ch	nange of Name	
Correctio	n of PTO Error Frame #		her	
Corrective	e Document		overnment .S. Government Agencies)	
Reel #	Frame #	Departmenta		e
Conveying F	Party(ies)	Mark if additional names of	conveying parties attached	Execution Date Day Year
Name (line 1)	Lin Liang			12 05 2001
Name (line 2) Second Party			Month	Execution Date
Name (line 1)	Yanyun Chen			12 05 2001
Name (line 2)				
Receiving P	arty	Mark if additi	onal names of receiving par	ties attached
Name (line 1)	Microsoft Corporation		is an as	ment to be recorded ssignment and the
Name (line 2)			domici	ng party is not led in the United an appointment mestic
Address (line 1)	One Microsoft Way		(Design	entative is attached. nation must be a te document from
Address (line 2)			Assign	ment.)
Address (line 3)		Washington	98052	
Domestic Representative Name and Address Enter for the first Receiving Party only.				
Name				
Address (line 1)				
Address (line 2)				
Address (fine 3)				
Address (line 4)				
		FOR OFFICE USE ONLY		

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington,

Washington,
D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB

Mail documents to be recorded with required cover sheet(s) information to:

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20503. See OMB

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20503. See OMB

Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20503. See OMB

FORM	PTO-1619E	
Expires 06/30/99		
OMB 0651-0027		

Page 2

U.S. Depart	ment of Commerce
Patent and	Trademark Office
	DATENT

OMB 0651-0027		. age z	,	PATENT
Correspon	dent Name and Address	Area Code and Telephone	Number	(805) 278-8855
Name	Richard T. Lyon			
Idress (line 1)	LYON & HARR, LLP		***	
ldress (line 2)	300 Esplanade Drive, Suite 800			
dress (line 3)	Oxnard, CA 93030			
dress (line 4)				
ages	Enter the total number of principle including any attachment	pages of the attached conveyands.	e document	# 3
pplication	Number(s) or Patent N	umber(s)	Mark if additi	onal numbers attached
		he Patent Number (DO NOT ENTER BOT		· · · · · · · · · · · · · · · · · · ·
	atent Application Number(s)		Patent Nu	mber(s)
100177	5.15 [
			7	
this document	is being filed together with a new l	Patent Application, enter the date the pa	tent application	Month Day Yea 12 05 2001
	peration Treaty (PCT)			
	ter PCT application number	PCT		PCT
	ly if a U.S. Application Numb s not been assigned.	PCT PCT		PCT
umber of	Properties Enter the to	tal number of properties involved	d. #	1
ee Amoun	t Fee Amou	unt for Properties Listed (37 CFR	3.41): \$	40.00
Depos	it Account	closed 🚺 Deposit Account		
(Enter fo	or payment by deposit account or if	additional fees can be charged to the Deposit Account Number:	#	
		Authorization to charge additiona		No No
tatement a	and Signature			
attaci		belief, the foregoing information e original document. Charges to		
	Richard T. Lyon	3		12-13-01
Mana	ne of Person Signing	Signature		Date

PATENT REEL: 012390 FRAME: 0359 FORM PTO-1619C Expires 06/30/99 OMB 0651-0027

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

U.S. Department of Commerce Patent and Trademark Office PATENT

_					
Conveying l Enter additiona	Party(ies) I Conveying Parties	Mark if	additional names of o	onveying parties at	Execution Date
Name (line 1)	Ying-Qing Xu			*2	Month Day Year 12/04/2001
		7.7		Ø	O
Name (line 2)				, CC	Execution Date
Name (line 1)	Baining Guo			1001	12/04/2001
Name (line 2)					Execution Date
Name (line 1)	Heung-Yeung Shum				Month Day Year 12 05 2001
Name (line 2)		·			
Receiving P	arty		Mark if addition	nal names of receiv	ring parties attached
Name (line 1)		17-11 17-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-			If document to be recorded is an assignment and the
Name (line 2)			304		receiving party is not domiciled in the United States, an appointment of a domestic
Address (line 1)					representative is attached. (Designation must be a separate document from
Address (line 2)					Assignment.)
Address (line 3)	City	Ste	ate/Country	Zip Code	
Name (line 1)					If document to be recorded is an assignment and the
Name (line 2)					receiving party is not domiciled in the United States, an appointment of a domestic
Address (line 1)					representative is attached. (Designation must be a separate document from
Address (line 2)					Assignment.)
Address (line 3)	City	Ste	ate/Country	Zip Code	
Application	Number(s) or Patent Num			Mark if additional n	
	he Patent Application Number or the Pa		L		
	itent Application Number(s)	· 1		Patent Number	
					7
		」' [L	

PATENT

REEL: 012390 FRAME: 0360

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventorship	Liang et al.
	Microsoft Corporation
	MCS-043-01
Title: INTERACTIVE WATER EFFECTS	USING TEXTURE COORDINATE SHIFTING

PATENT ASSIGNMENT

PARTIES TO THE ASSIGNMENT

Assignor(s):

Lin Liang
3F, Beijing Sigma Building
49 Zhichun Road
Haidian District
Beijing, P. R. 100080 China

Yayun Chen 3F, Beijing Sigma Building 49 Zhichun Road Haidian District Beijing, P. R. 100080 China

Ying-Qing Xu
No. 406, Building 31
Beijing University of Science and Technology
Haidian District
Beijing, P. R. 100083 China

Baining Guo 3F, Beijing Sigma Building 49 Zhichun Road Haidian District Beijing, P. R. 100080 China

Heung-Yeung Shum 29, Beijing Riviera 1 Xiangjiang Belu, ChaoYang District Beijing, P. R. 100015 China

Page 1 of 3

PATENT REEL: 012390 FRAME: 0361 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

"Interactive Water Effects Using Texture Coordinate Shifting," as described and claimed in the

specification forming part of an application for United States letters patent referenced above;

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, 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)

Page 2 of 3

PATENT

REEL: 012390 FRAME: 0362

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 therefor.

 $\frac{5/12/2001}{\text{Date}}$

Lin Liang

5/12/2001 Date

Yayun Chen

Date

Ying-Qing Xu

12/04/01 Date

RECORDED: 12/13/2001

Baining Guo

Heung-Yeung Shum