FORM PTO-1595 (Modified)

Sean M. McGinn, Esq.

Name of Person Signing

05-31-2000



₹ SHEET

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

Docket No.: YQ999-598

(Rev - 9-5) OMB N/2. 0651-0011 (exp. 4/94) Copyright 1996-97 LegalStar P084/REV02		MM _Y	Patent and Trademark Office
Tab settings → → ▼	101369328	<u> </u>	V
To the Honorable Commissioner of Patent	s and Trademarks: P	Please record the attached	original documents or copy thereof.
3. Prabhakar Nandavar Kudva 4. Lakshmi	Ernst Donath,	Address: New Orchard	usiness Machines Corporation
Additional names(s) of conveying party(ies) attached?	Yes X No	ح مري	
3. Nature of conveyance:	10	(5 B)	
★ Assignment	erger	- William	
☐ Security Agreement ☐ Ch	ange of Name	Armonk	State/Prov.: NY
☐ Other		Country: USA	ZIP: 10504
Execution Date: 1-4. 03/07/00; 5. 03/08/00; 07. 03/10/00	6. 03/09/00	Additional name(s) & address(es	attached? 🗆 Yes 🖼 No
4. Application number(s) or registration num If this document is being filed together wit		the execution date of the	application is:
Patent Application No. Filing date	9	B. Patent No.(s)	
09/524,408 March 13,	2000		
)5/26/2000 TTRANI 00000075 09524408			
2 FC:581 40.00 DP			
	Additional numbers attac	ched? 🗌 Yes 🔀 No	
5. Name and address of party to whom corrections document should be mailed:	espondence	6. Total number of applica	ations and patents involved:
Name: Sean M. McGinn, Esq.		7. Total fee (37 CFR 3.41)):\$ <u>40.</u> 00
Registration No. Reg. No. 34,386			ess or insufficiency should be
Address: McGinn and Gibb, P.C.		credited or debited	
1701 Clarendon Boulevard		☐ Authorized to be ch	larged to deposit account
Suite 100		8. Deposit account number	er:
City: Arlington State/F	Prov.: VA	50-0489	
Country: USA ZIP: 2	22209	3V-V4U7	
	DO NOT US	SE THIS SPACE	
9. Statement and signature. To the best of my knowledge and belief, to of the original document. To the original document.	the foregoing informa	tion is true and correct and	d any attached copy is a true copy

Total number of pages including cover sheet, attachments, and document:

Date

May 25, 2000

ASSIGNMENT

Whereas, we

Inventor and City

(1) Kanad Chakraborty City of Mt. Arlington
County of Morris and State of New Jersey

(2) Wilm Ernst Donath
County of New York
County of New York
And State of New York

(3) Prabhakar Nandavar Kudva City of White Plains
County of Westchester and State of New York

(4) Lakshmi Narasimha Reddy
County of Westchester
City of Ossining
and State of New York

(5) Leon Stok
County of Westchester
City of Croton-on-Hudson and State of New York

(6) Andrew James Sullivan City of Wappingers Falls
County of Dutchess and State of New York

(7) Paul Gerard Villarrubia City of Round Rock County of Williamson and State of Texas

have invented certain improvements in

Title

METHOD AND APPARATUS FOR APPLYING FINE-GRAINED TRANSFORMS DURING PLACEMENT SYNTHESIS INTERACTION

Dates That Inventors Signed the

Declaration

and have executed, respectively, a United States patent application therefor on

(1) March 7, 2000, (2) March 7, 2000, (3) March 7, 2000, (4) March 7, 2000, (5) March 8, 2000, (6) 2000, and (7) 2000.

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York, 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we the above named hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

City Date	(1) Signed at Yorktown Hgts., NY on March 7, 2000	(Kanad First Name	Middle Initial	Chakraborty Last Name	_ signature) inventor
City	(2) Signed at Yorktown Hgts., NY on March 7, 2000	(Wilm	Ernst	Donath	signature
Date		First Name	Middle Name	Last Name) inventor
City Date	(3) Signed at Yorktown Hgts., NY on March 7, 2000	(Prabhakar First Name	CCCE Ce Nandavar Middle Name	Kudva Last Name	_ signature) inventor
City	(4) Signed at Yorktown Hgts., NY on March 7, 2000	(Lakshmi	Narasimha	Reddy	_ signature
Date		First Name	Middle Name	Last Name) inventor
City Date	(5) Signed at Yorktown Hgts., NY on March 8, 2000	(Leon First Name	Middle Initial	Stok Last Name	_ signature) inventor
City	(6) Signed at on	(Andrew	James	Sullivan	_ signature
Date		First Name	Middle Name	Last Name) inventor
City	(7) Signed at on	(Paul	Gerard	Villarrubia	_ signature
Date		First Name	Middle Name	Last Name) inventor

Page 2 of 4

Inventor (1)	On this 7th day of March, 2000, before me personally came Kanad Chakrborty to me	
(personally known, and known to me to be the person described in and who executed the foregoing assignment,	
	and he acknowledged to me that he executed the same as his free act and deed.	
	- Thulle Toll flu	
	LUCILLE FOURGEOT	
	NOTARY PUBLIC, state of New York	
	No. 4502670	
	Qualified in Westchester Count	
	Commission Expires 06/30/201	
Inventor (2)	On this 7th day of March, 2000, before me personally came Wilm Ernst Donath to me	
Inventor (2)	personally known, and known to me to be the person described in and who executed the foregoing assignment,	
	personally known; and known to me to be the personal test med and dodd	
	and he acknowledged to me that he executed the same as his free act and deed	
	full collection	
	LUCILLE FOURGEOT	
	NOTARY PUBLIC, State of New York	
	No. 4502670	
	Qualified in Westchester Count,	
	Commission Expires 66/30/2001	
	William Beking Of 12012 of	
Inventor (3)	On this7th_day of _March, 2000, before me personally came _Prabhakar N. Kudva to me	
2.2 (-)	personally known, and known to me to be the person described in and who executed the foregoing assignment,	,
	and he acknowledged to me that he executed the same as his free act and deed fuelly four effect	
	and he acknowledged to me that he executed the same as his free act and deed with the company of	
	LUCILLE FOURGEOT	
	NOTARY PUBLIC, State of New York	
	No. 4502670	
	Qualified in Westchester County.	
	Commission Expires of /3/2004	
	On this 74h day of March 2000, before me personally came Lakshmi N. Reddy to me	A
Inventor (4)	On this / Fit day of March 12000, before the personally control	
,	personally known, and known to me to be the person described in and who executed the foregoing assignment	,
	and he acknowledged to me that he executed the same as his free act and deed.	
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	- dulle rolling	
	LUCILLE FOURGEOT	
	NOTARY PUBLIC, State of New York	
	No. 4502670	
	Qualified in Wesichester Count	
	Commission Expires action 12 act	
I	On this 8th day of March, 2000, before me personally came Leon Stok to me	.e
Inventor (5)	the time of the territory before the personal states	t.
	personally known, and known to me to be the person described in and who executed the foregoing assignment	
	and he acknowledged to me that he executed the same as his free act and deed.	,
	doi the langet	
	1/21064 1/0414 Cit	
	and he acknowledged to me that he executed the same as his free act and deed.	
	NOTARY PUBLIC, Jake of New York	
	110. 430/6/11	
	Qualified in Westchester Count	
	Commission Francis 06/30/2001	
	100/0	

Page 3 of 4

Inventor (6) On this ____ day of ____, 2000, before me personally came _____ to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.

Inventor (7) On this ____ day of ____, 2000, before me personally came _____ to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.

Page 4 of 4

ASSIGNMENT

Whereas, we

Inve	ntor
and	City

(1) Kanad Chakraborty County of Morris

City of Mt. Arlington and State of New Jersey

(2) Wilm Ernst Donath County of New York

City of New York and State of New York

(3) Prabhakar Nandavar Kudva County of Westchester

City of White Plains and State of New York

(4) Lakshmi Narasimha Reddy County of Westchester

City of Ossining and State of New York

(5) Leon Stok County of Westchester City of Croton-on-Hudson and State of New York

(6) Andrew James Sullivan County of Dutchess

City of Wappingers Falls and State of New York

(7) Paul Gerard Villarrubia County of Williamson

City of Round Rock and State of Texas

have invented certain improvements in

Title

METHOD AND APPARATUS FOR APPLYING FINE-GRAINED TRANSFORMS DURING PLACEMENT SYNTHESIS INTERACTION

Dates That Inventors Signed the Declaration and have executed, respectively, a United States patent application therefor on

(1) March 7, 2000, (2) March 7, 2000, (3) March 7,

2000, (4) March 7, 2000,

(5) March 8, 2000, (6) March 9.9, 2000, and (7) 2000.

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York, 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and forcign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we the above named hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Page 1 of 4

REEL: 010811 FRAME: 0223

City Date	(1) Signed at Yorktown Hgts., NY on March 7, 2000	Kanad First Name	Middle Initial	Chakraborty Last Name	signature) inventor
City Date	(2) Signed at Yorktown Hgts., NY on March 7, 2000	(Wilm First Name	Ernst Middle Name	Donath Last Name	signature) inventor
City Date	(3) Signed at Yorktown Hgts., NY on March 7, 2000	(Prabhakar First Name	elle en (l Nandavur Middle Name	Kudva Last Name	_signature) inventor
City Date	(4) Signed at Yorktown Hgts., NY on March 7, 2000	(Lakshmi First Name	Narasimha Middle Name	Reddy Last Name	_signature) inventor
City Date	(5) Signed at Yorktown Hgts., NY on March 8, 2000	Leon First Name	Middle Initial	Stok Last Name	_ signature) inventor
City Date	(6) Signed at East Fishkill, Noon March 9, 2000	(Andrew First Name	James Middle Name	Sullivan Last Name	_ signature) inventor
City	(7) Signed at				<u></u>
Date	on	Paul	Gerard	Villarrubis	_ signature ı) inventor

Page 2 of 4

First Name Middle Name

REEL: 010811 FRAME: 0224

Last Name

Inventor (1)	On this _7rh day of March , 2000, before me personally cameKanad Chakrborty to me personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed.
	Julie out fu
	LUCILLE FOURGEOT
	NOTARY PUBLIC, state of New York No. 4502670
	Qualified in Westchester Count
	Commission Expires $o \in /30/200/$
Inventor (2)	On this7th_day of _March, 2000, before me personally came Wilm Ernst Donath to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed
	Talle John Val
	LUCILLE FOURGEOT
	NOTARY PUBLIC, Julie of New York
	No. 4502670 Qualified in Westchester Coun€
	Commission Expires 66/30/2001
	3/3/12/07
T (2)	Out this are a described as a second of the
Inventor (3)	On this 7th day of March, 2000, before me personally came Prabhakar N. Kudva to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed Jucille Fouriful
	LUCILLE FOURGEOT
	NOTARY PUBLIC, state of New York No. 4502670
	Qualified in Westchester Count.
	Rommission Expires 06/30/2001
Inventor (4)	On this 7th day of March, 2000, before me personally came Lakshmi N. Reddy to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed.
	- Juille this Cut
	LUCILLE FOURGEOT
	NOTARY PUBLIC, state of New York
	No. 4502670
	Qualified in Westchester Count
	Commission Expires 06 /3 001
Inventor (5)	On this 8th day of March, 2000, before me personally came Leon Stok to me
(-,	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed.
	for the land of
	Tulle (10414ld
	LUCILLE FOURGEOT
	NOTARY PUBLIC, state of New York
	NO. 4502670
	Qualified in Westchester Count
	Commission Engines 06/30/2001

Page 3 of 4

м**ык ба ,бұлатая**к сыр

	(IBM Docket No.: YO999-598)
aventor (6)	On this Phday of Much, 2000, before me personally came Andrew Jollivan to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.
	HILDA NESHEIWAT Notary Public, State of New York No. 01NE5013143 Qualified in Dutchess County Term Expires: 07/15/
Inventor (7)	On this

Page 4 of 4

City of Mt. Arlington

ASSIGNMENT

Whereas, we

Inve	entor
and	City

(1) Kanad Chakraborty County of Morris

ounty of Morris and State of New Jersey

. (2) Wilm Ernst Donath
County of New York
County of New York
County of New York

(3) Prabhakar Nandavar Kudva City of White Plains
County of Westchester and State of New York

(4) Lakshmi Narasimha Reddy
County of Westchester
City of Ossining
and State of New York

(5) Leon Stok
County of Westchester
City of Croton-on-Hudson and State of New York

(6) Andrew James Sullivan
County of Dutchess
City of Wappingers Falls
and State of New York

(7) Paul Gerard VillarrublaCity of Round RockCounty of Williamsonand State of Texas

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чер на Ред ТЕМТ, бо не не пометь на пометь н

City	(1) Signed at Yorktown Hgts., NY	V 0		\mathcal{N}	
Date	on March 7, 2000	4 amag	Chakrah	dM	aiomot
	·	(Kanad First Name	Middle Initial	Chakraborty Last Name	signature) inventor
City Date	(2) Signed at Yorktown Hgts., NY on March 7, 2000	W.L	Even	Donn	signature
	•	(Wilm First Name	Ernst Middle Name	Donath Last Name) inventor
City	(3) Signed at Yorktown Hgts., NY		1		
Date	on March 7, 2000	Nhe	- Color	dro.	signature
		(Prabhakar First Name	Nandavar Middle Name	Kudva Last Name) inventor
City	(4) Signed at Yorktown Hgts., NY				
Date	on March 7, 2000	dethum'	Nouman h	Long	signature
		(Lakshmi First Name	Narasimha Middle Name	¹ Reddy Last Name) inventor
City	(5) Signed at Yorktown Hgts., NY	· // ·	\		
Date	on March 8, 2000		dr.		signature
		(Leon V First Name	Middle Initial	Stok Last Name) inventor
City	(6) Signed at				
Date	on				signature
		(Andrew First Name	James Middle Name	Sullivan Last Name) inventor
City	on March 10, 2000	1) / 5	(1)	1	
Date	on March 10,2000	- luly	e and Willen	ut	signature
	,	(Paul First Name	Gcrard Middle Name	Villarrubia Last Name) inventor

Page 2 of 4

REEL: 010811 FRAME: 0228

	•
Inventor (1)	On this _7th day of March , 2000, before me personally came <u>Kanad Chakrborty</u> to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.
	LUCILLE FOURGEOT
	NOTARY PUBLIC, State of New York
	No. 4502670 Qualified in Wesichester Course
	Commission Expires 0 6 /30/2001
	• ,
Inventor (2)	On this 7th day of March , 2000, before me personally came Wilm Ernst Donath to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed
	LUCILLE FOURGEOT
	NOTARY PUBLIC, State of New York No. 4502670
	Qualified in Westchester Count
	Commission Expires 66/30(2001
Inventor (3)	On this 7th day of March, 2000, before me personally came Prabhakar N. Kudva to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed fuelle fourged LUCILLE FOURGEOT
	NOTARY PUBLIC, Jate of New York
	No. 4502670 Qualified in Westchester Couns.
	Commission Expires 06/30/2001
Inventor (4)	On this 7th day of March, 2000, before me personally came Lakshmi N. Reddy to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment,
	and he acknowledged to me that he executed the same as his free act and deed.
	LUCILLE FOURGERT
	NOTARY PUBLIC, Jiate of New York
	No. 4502670
	Qualified in Westchester County Commission Expires 06 84/2 001
	Samuel Street Congress 200
	T C4-1
Inventor (5)	On this 8th day of March, 2000, before me personally came Leon Stok to me
	personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.
	and he acquired each to the that he executed the same as instruct act and deed.
	Julie Jourged
	NOTARY PURILE FOURGEOT
	NOTARY PUBLIC, state of New York No. 4502670
	URBANA IN Montal and a second
	Commission Express 06/30/2001

Page 3 of 4

сы ды**РАТЕМ**Б, ба ыны **REEL: 010811 FRAME: 0229**

		(IBM Docket No.: YO95	19-398)
inventor (6)	On this day of personally known, and know and he acknowledged to me	, 2000, before me personally came	to me
Inventor (7)	personally known, and know	िर्द्ध , 2000, before mc personally came PAUL (२६ २८३०) vn to me to be the person described in and who executed the foreg	いエに みれんのるこみ to me oing assignment,
	and he acknowledged to me	that he executed the same as his free act and decd. F.C. SEARL, JI Notary Public, State of 1 My Commission Expire OCT. 21, 2002	exas (

Page 4 of 4

RECORDED: 05/25/2000

сы ан **РАТЕМТ** 60 ани **REEL: 010811 FRAME: 0230**