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U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

Attorney Docket: YOR920020095US1 (8728-578)

102451418 RECORDATION FURM COVER SHEET PATENTS ONLY

To the Honorable Commissioner of Patents and Tradema or copy thereof. $5-16-0.3$	rks: Please record the attached original documents
1. Name of conveying party(ies): Jaime H. MORENO, Jeffrey Haskell DERBY, Uzi SHVADRON, Fredy Daniel NEESER, Victor ZYUBAN, Ayal ZAKS, Shay Ben-DAVID Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No 3. Nature of conveyance: ☒ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other Execution Date: August 29, 2002 (VZ) September 1, 2002 (SBD), September 10, 2002 (JHM), September 16, 2002 (FDN) November 3, 2002 (AZ), April 21, 2003 (JHD) April 25, 2003 (US)	Name: International Business Machines Corporation Armonk, New York 10504 Additional name(s) & address(es) attached: □ Yes ☑ No
of the application is: August 29, 2002 (2002 (JHM), September 16, 2002 (FDN) November 25, 2003 (US) A. Patent Application No.(s)10/197,733	with a new application, the execution date VZ), September 1, 2002 (SBD), September 10,
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved: 1
Name: Frank Chau, Esq. Street Address: F. CHAU & ASSOCIATES, LLP	7. Total fee (37 C.F.R. §3.41): \$40.00 ☐ Enclosed ■ Authorized to be charged to deposit account
1900 Hempstead Turnpike, Suite 501 City: East Meadow State: NY Zip: 11554	8. Deposit account number: 50-0510/IBM (Yorktown Heights) (Attach duplicate copy of this page if paying by deposit account)

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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.

Frank Chau

Registration No. 34,136

Name of Person Signing

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Assignment

Whereas, we

Inventor

(1) Jaime H. Moreno and City

County of WEST CHESTER

of DOBBS FERRY

and State of NEW YORK

Inventor

and City (2) Jeffrey Haskell Derby

County of

of CHAPEL HILL

and State of NORTH CAROLINA

Inventor and City

(3) Uzi Shvadron

County of

of MITZPR AVIV

and of ISRAEL

Inventor

and City

(4) Fredy Daniel Neeser

County of

of LANGNAU AM ALBIS

and of SWITZERLAND

Inventor and City

(5) Victor Zyuban

County of WESTCHESTER

of YORKTOWN HEIGHTS and State of NEW YORK

Inventor and City

County of

(6) Aval Zaks

of MITZPE, AVIV and of ISRAEL

Inventor

and City

(3) Shay Ben-David

County of

of HATEA

and of ISRAEL

have invented certain improvements in

DIGITAL SIGNAL PROCESSOR WITH SIMD ORGANIZATION AND TITIE FLEXIBLE DATA MANIPULATION

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

DATES THAT (1)

2002 and (2)

2002 and (3)

2001

INVENTORS (4) SIGNED THE DECLARATION

2002 and (5)

2002 and (6)

2001.

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 inventions 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.

Signed and sealed

(1) at Yorktown Heights CITY

2002,

(Jaime H. Moreno) INVENTOR

SIGNATURE

SIGNATURE

9/10 DATE on

FIRST NAME MIDDLE INITIAL LAST NAME

Signed and sealed

CITY (2) at DATE

2002

(Jeffery Haskell Derby) INVENTOR FIRST NAME MIDDLE INITIAL

LAST NAME

Signed and sealed

CITY (3) at

DATE

on

2002

FIRST NAME

(Uzi Shvadron) INVENTOR

SIGNATURE

SIGNATURE

MIDDLE INITIAL

LAST NAME

Signed and sealed

CITY (4) at DATE on

2002

(Fredy Daniel Neeser) INVENDATENT FIRST NAME MIDDLE INITI

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of LANGNAU AM ALBIS

Assignment

Whereas, we

Inventor

and City

(1) Jaime H. Moreno of DOBBS FERRY

County of and State of NEW YORK

Inventor

(2) Jeffrey Haskell Derby and City of CHAPEL HILL

County of and State of NORTH CAROLINA

Inventor

(3) Uzi Shvadron and City of MITZPE AVIV and of ISRAEL

County of

Inventor

and City (4) Fredy Daniel Neeser

County of and of SWITZERLAND

Inventor

(5) Victor Zyuban and City of YORKTOWN HEIGHTS

County of WESTCHESTER and State of NEW YORK

Inventor

Inventor

(6) Ayal Zaks and City of MITZPE, AVIV and of ISRAEL

County of

(3) Shay Ben-David and City

of HAIFA County of and of ISRAEL

have invented certain improvements in

DIGITAL SIGNAL PROCESSOR WITH SIMD ORGANIZATION AND TITLE FLEXIBLE DATA MANIPULATION

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INVENTORS (4)

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Signed and sealed CITY (1) at SIGNATURE 2002, DATE (Jamie H. Moreno) INVENTOR on FIRST NAME MIDDLE INITIAL LAST NAME

Signed and sealed

CITY (2) at SIGNATURE

DATE (Jeffery Haskell Derby) INVENTOR FIRST NAME MIDDLE INITIAL 140 Jeffrey

Signed and sealed CITY (3) at SIGNATURE

2002 DATE (Uzi Shvadron) INVENTOR on

> FIRST NAME MIDDLE INITIAL LAST NAME

Assignment

Whereas, we

Inventor

and City (1) Jaime H. Moreno

County of

of DOBBS FERRY

and State of NEW YORK

Inventor

and City

(2) Jeffrey Haskell Derby

County of

of CHAPEL HILL

and State of NORTH CAROLINA

Inventor and City

(3) Uzi Shvadron

County of

of MITZPE AVIV

and of ISRAEL

Inventor

and City

(4) Fredy Daniel Neeser

County of

of LANGNAU AM ALBIS

and of SWITZERLAND

Inventor

and City

(5) Victor Zyuban

County of WESTCHESTER

of YORKTOWN HEIGHTS and State of NEW YORK

Inventor and City

(6) Ayal Zaks

County of

of MITZPE, AVIV and of ISRAEL

Inventor

and City

(3) Shay Ben-David

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and of ISRAEL

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DATES THAT (1)

2002 and (2) 2002 and (5)

United States and foreign patents to be obtained therefor;

2002 and (3) 2002 and (6)

2001 2001.

SIGNED THE DECLARATION

INVENTORS (4)

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

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 inventions 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.

Signed and sealed

on

CITY (1) at SIGNATURE

SIGNATURE

SIGNATURE

DATE on

2002,

MIDDLE INITIAL LAST NAME FIRST NAME

(Jamie H. Moreno) INVENTOR

Signed and sealed

CITY (2) at

DATE

2002

(Jeffery Haskell Derby) INVENTOR MIDDLE INITIAL

Signed and sealed

DATE

on AVRIL

2002

(Uzi Shvadron) INVENTOR

FIRST NAME

MIDDLE INITIAL AAAAAA LAST NAME

FIRST NAME

REEL: 014065 FRAME: 0679

Assignment

Whereas, we

Inventor

and City (1) Jaime H. Moreno

County of

of DOBBS FERRY

(2) Jeffrey Haskell Derby and City County of

and State of NEW YORK

and State of NORTH CAROLINA

Inventor

Inventor and City

(3) Uzi Shvadron

County of

of MITZPE AVIV

of CHAPEL HILL

and of ISRAEL

Inventor

and City

(4) Fredy Daniel Neeser

County of

of LANGNAU AM ALBIS and of SWITZERLAND

Inventor

and City

(5) Victor Zyuban County of WESTCHESTER of YORKTOWN HEIGHTS and State of NEW YORK

Inventor

and City

(6) Aval Zaks

County of

of MITZPE, AVIV and of ISRAEL

Inventor

and City

(3) Shay Ben-David

County of

of HAIFA

and of ISRAEL

have invented certain improvements in

DIGITAL SIGNAL PROCESSOR WITH SIMD ORGANIZATION AND TITLE FLEXIBLE DATA MANIPULATION

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(1) DATES THAT INVENTORS (4) SIGNED THE

2002 and (2) 2002 and (5)

2002 and (3) 2002 and (6)

2001

2001.

DECLARATION

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Signed and sealed CITY (1) at SIGNATURE 2002, DATE (Jamie H. Moreno) INVENTOR on FIRST NAME MIDDLE INITIAL LAST NAME

Signed and sealed CITY (2) at

DATE on

2002

(Jeffery Haskell Derby) INVENTOR MIDDLE INITIAL FIRST NAME LAST NAME

Signed and sealed

CITY (3) at DATE on

CITY

DATE

2002

(Uzi Shvadron) INVENTOR

SIGNATURE

SIGNATURE

on

Signed and sealed (4) at Langnan

2002

Daniel Neerer Stredy

(Fredy Daniel Neeser) INVENTOR FIRST NAME MIDDLE INITIAL

LAST NAME

LAST NAME

Page 2 of 2

PATENT REEL: 014065 FRAME: 0680

FIRST NAME MIDDLE INITIAL

CITY .	(.5)	signed and sealed at Yorktown Heights, on Aug 29	<i>MY</i> 2002	(Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME	SIGNATURE
CITY DATE	(6)	Signed and sealed at on	2002	(Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME	SIGNATURE
CITY	(7)	Signed and sealed at on	2002	(Shay Ben-David) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME	SIGNATURE

DATE on 2002 (Fredy Daniel Neeser) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME Page 2 of the state of the s									seared	ied and	Sigi		**
Signed and sealed CITY (5) at DATE on 2002 (Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME Signed and sealed CITY (6) at Haif Israel On New 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME SIGNATOR OF THE STREET NAME MIDDLE INITIAL LAST NAME	NATURE	SIGN									at	(4)	CITY
Signed and sealed CITY (5) at DATE on 2002 (Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME Signed and sealed CITY (6) at Haif Israel On New 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME SIGNATOR OF THE STREET NAME MIDDLE INITIAL LAST NAME				ENTOR	leeser) INV	Daniel N	(Fredy	2002			on		DATE
Signed and sealed CITY (5) at DATE on 2002 (Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME Signed and sealed CITY (6) at Haif, Israel On New: 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME SIGNATION OF THE STREET NAME MIDDLE INITIAL LAST NAME			NAME				•				0		21112
CITY (5) at DATE on 2002 (Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME CITY (6) at Half Tornel DATE on New 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME	2 of 2	Page 2											
DATE on 2002 (Victor Zyuban) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME Signed and sealed CITY (6) at Haif Torae (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME SIGNATOR OF THE SIGNAL S									sealed	ned and	Sign		
Signed and sealed CITY (6) at Haif Iswael DATE on Nov. 3 2002 CITY NAME MIDDLE INITIAL LAST NAME SIGNATOR FIRST NAME MIDDLE INITIAL LAST NAME	NATURE	SIGN									at	(5)	CITY
Signed and sealed CITY (6) at Haif Israel DATE on New. 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME					INVENTOR	zyuban)	(Victo	2002			on		DATE
CITY (6) at Haife, Israel DATE on New. 3 2002 (Ayal Zaks) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME			NAME	LAST	INITIAL	MIDDLE	FIRST NAME						
Signed and sealed	NATURE	sign/	NAME	LAST		Zaks) INVEN		2002	Ismel	Haifa.	at	(6)	
CITY (7) atSIGNA	NATURE	SIGN							sealed	ned and	_	(7)	CITY
DATE on 2002 (Shay Ben-David) INVENTOR					l) inventor	Ben-David	(Shay	2002					DATE
FIRST NAME MIDDLE INITIAL LAST NAME			NAME	LAST	INITIAL	MIDDLE	FIRST NAME						

CITY DATE	(5)	Signed at on	and	sealed	2002	(Victor	Zyuban) MIDDLE	INVENTOR INITIAL	LAST	NAME	SIGNATURE
CITY DATE	(6)	Signed at on	and	sealed	2002	(Ayal Z FIRST NAME	aks) inve Middle	NTOR INITIAL	LAST	NAME	SIGNATURE
CITY DATE	(7)	_		sealed	2002	(Shay B		3/7 i) inventor initial	ري. LAST	NAME	SIGNATURE

RECORDED: 05/16/2003