Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Dengfeng Gao	09/30/2003
Ihab F. ILYAS	09/30/2003
Eileen Tien Lin	09/30/2003
Guy Maring Lohman	09/30/2003
Jun Rao	09/30/2003

RECEIVING PARTY DATA

Name:	International Business Machines Corporation	
Street Address:	ress: New Orchard Road	
City: Armonk		
State/Country: NEW YORK		
Postal Code: 10504		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12032838

CORRESPONDENCE DATA

Fax Number: (703)461-7060

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 703-461-7060

Email: ram@ip-authority.com

Correspondent Name: IP AUTHORITY, LLC RAMRAJ SOUNDARARAJAN

Address Line 1: 4821A Eisenhower Ave
Address Line 4: Alexandria, VIRGINIA 22304

ATTORNEY DOCKET NUMBER:	ARC920030045US2
NAME OF SUBMITTER:	Ramraj Soundararajan

PATENT REEL: 020522 FRAME: 0125

500466235

OU UP\$

| Y

Total Attachments: 14

source=RecordedAssignment#page1.tif
source=RecordedAssignment#page2.tif
source=RecordedAssignment#page3.tif
source=RecordedAssignment#page4.tif
source=RecordedAssignment#page5.tif
source=RecordedAssignment#page6.tif
source=RecordedAssignment#page7.tif
source=RecordedAssignment#page8.tif
source=RecordedAssignment#page9.tif
source=RecordedAssignment#page10.tif
source=RecordedAssignment#page11.tif
source=RecordedAssignment#page12.tif
source=RecordedAssignment#page13.tif
source=RecordedAssignment#page13.tif
source=RecordedAssignment#page14.tif

PATENT ASSIGNMENT

Electronic Version v07 Stylesheet Version v02

01/07/2004 800009738

SUBMISSION TYPE:	I NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT OF ASSIGNOR'S INTEREST

CONVEYING PARTY DATA

Name	Execution Date
Dengfeng Gao	2003-09-30
lhab F. liyas	2003-09-30
Eileen Tien Lin	2003-09-30
Guy Maring Lohman	2003-09-30
Jun Rao	2003-09-30

RECEIVING PARTY DATA

Name	Street Address	Internal Address	City	State/Country	Postal Code
International Business Machines Corporation	New Orchard Road		Armonk	NEW YORK	10504

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number	10673433

CORRESPONDENCE DATA

FAX NUMBER: 703-838-7684

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

When the customer number has been provided, the Office of Public Records will obtain the correspondence data from the

official record on file at the USPTO. **CUSTOMER NUMBER: 026381**

NAME OF PERSON SIGNING:	Ramraj Soundararajan
DATE SIGNED:	2004-01-07

Total Attachments: 10 source=ASSIGNCVRP3.tif source=ASSIGNCVRP4.tif source=ASSIGNCVRP5.tif source=ASSIGNCVRP6.tif source=ASSIGNCVRP7.tif

> **PATENT REEL: 020522 FRAME: 0127**

CH \$40.00 090441 10673433

ı		
	source=ASSIGNCVRP8.tif	
	source=ASSIGNCVRP9.tif	Section 1
	source=ASSIGNCVRP10.tif	
ı	source=ASSIGNCVRP11.tif	NAME OF TAXABLE PARTY.
	source=ASSIGNCVRP12.tif	200000000000000000000000000000000000000

Whereas, we,

(1)	Dengfeng Gao	of Tucson		
	County of Pima	and State of AZ,		
(2)	Ihab F. Ilyas	of West Lafayette		
(0)	County of Tippecanoe	and State of IN,		
(3)	Eileen Tien Lin	of San Jose		
745	County of Santa Clara	and State of CA,		
(4)	Guy Maring Lohman	of San Jose		
(5)	County of Santa Clara Jun Rao	and State of CA, of San Jose		
(3)	County of Santa Clara	and State of CA,		
	County of Santa Clara	and State of CA,		
have in	nvented certain improvements in			
Estimo	ating the Compilation Time of a Query Optimizer			
and ex	secuted, respectively, a United States patent application	on therefore on		
(1)	9/30 2003 (2) 20	02 (3) 2002 (4)		
(1)	9/30 , 2003, (2), 20 , 2003, (5), 2003.	03, (3), 2003, (4)		
	, 2003, (2), 2003.			
Where	as, INTERNATIONAL BUSINESS MACHINES C	ORPORATION, a corporation of New		
York,	having a place of business at Armonk, New York 10	3504, (hereinafter called IBM), desires		
to acq	uire the entire right, title and interest in the said appl	ication and invention, and to any		
United	l States and foreign patents to be obtained therefore;	· · · · · · · · · · · · · · · · · · ·		
Now t	herefore, for a valuable consideration, receipt where	of is hereby acknowledged, we, the		
above	named, hereby sell, assign, and transfer to IBM, its	successors and assigns, the entire right,		
title ar	nd interest in the said application and invention there	in disclosed for the United States and		
Ioreigi	n countries, and all rights of priority resulting from t	he filing of said United States		
the in	ation, and we request the Commissioner of Patents to	o issue any Letters Patent granted upon		
agree	ventions set forth in said application to IBM, its succepts that IBM may apply for foreign Latters Potent on acid	d invention and we will assess all		
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.				
10 40 0				
Signed	d and sealed:			
(1) a	on $\frac{7}{30}$, AZ Dengte	y for one		
,	on $9/30$. 2003 Dengte	ong Caa		
($\frac{1}{\sqrt{2}}, 2003 \qquad \text{Dengree}$	eng Gao		

(2)	at	<u> </u>	
	on	_, 2003	Ihab F. Ilyas
(3)	at	_	
	on	_, 2003	Eileen Tien Lin
(4)	at		
	on	_, 2003	Guy Maring Lohman
(5)	at		
. ,	on		Jun Rao

Whereas, we,

(1)	Dengfeng Gao	of Tucson	
	County of Pima	and State of AZ,	
(2)	Ihab F. Ilyas	of West Lafayette	
	County of Tippecanoe	and State of IN,	
(3)	Eileen Tien Lin	of San Jose	
	County of Santa Clara	and State of CA,	
(4)	Guy Maring Lohman	of San Jose	
` '	County of Santa Clara	and State of CA,	
(5)	Jun Rao	of San Jose	
()	County of Santa Clara	and State of CA,	
have	invented certain improvements in		
Estin	nating the Compilation Time of a Que	ery Optimizer	
and e	executed, respectively, a United State	es patent application therefore on	
(1)	2002 (2) 60	130 2002 (2)	2002 (4)
(1) _		<u></u>	_, 2003, (4)
necina micromorphops	, 2003, (3)		
York to ac	x, having a place of business at Armor	S MACHINES CORPORATION, a corporant, New York 10504, (hereinafter called Institute in the said application and invention, and otained therefore;	BM), desires
above title of foreit applied the integrated paper.	re named, hereby sell, assign, and transand interest in the said application and gn countries, and all rights of priority ication, and we request the Commissinventions set forth in said application that IBM may apply for foreign Letter.	on, receipt whereof is hereby acknowledged as a sign, its successors and assigns, the addinvention therein disclosed for the Unite by resulting from the filing of said United Stationer of Patents to issue any Letters Patent at to IBM, its successors and assigns; and we ters Patent on said invention and we will explain the States and foreign applications where	e entire right, d States and tates granted upon te hereby execute all
Sign	ed and sealed:		
(1)	at		The state of the s
	on, 2003	Dengfeng Gao	

(2)	at West Lafayette	, IN	Theb Ilous
	$\sim 1^{\circ}$	_, 2003	Ihab F. Ilyas
(3)	at		
	on	_, 2003	Eileen Tien Lin
(4)	at		
	on	_, 2003	Guy Maring Lohman
(5)	at		
	on	_, 2003	Jun Rao

Whereas, we,

Dengfeng Gao	of Tucson
County of Pima	and State of AZ,
Ihab F. Ilyas	of West Lafayette
County of Tippecanoe	and State of IN,
Eileen Tien Lin	of San Jose
County of Santa Clara	and State of CA,
· · · · · · · · · · · · · · · · · · ·	of San Jose
· ·	and State of CA,
Jun Rao	of San Jose
County of Santa Clara	and State of CA,
invented certain improvements in	
ating the Compilation Time of a Que	ry Optimizer
xecuted, respectively, a United States	patent application therefore on
, 2003, (2)	$\underline{\hspace{1cm}}$, 2003, (3) $\underline{\hspace{1cm}}$, 2003, (4)
, 2003, (5)	, 2003.
having a place of business at Armon uire the entire right, title and interest	MACHINES CORPORATION, a corporation of New k, New York 10504, (hereinafter called IBM), desires in the said application and invention, and to any ained therefore;
named, hereby sell, assign, and trans nd interest in the said application and n countries, and all rights of priority a tation, and we request the Commission ventions set forth in said application to that IBM may apply for foreign Lette	n, receipt whereof is hereby acknowledged, we, the fer to IBM, its successors and assigns, the entire right invention therein disclosed for the United States and resulting from the filing of said United States ner of Patents to issue any Letters Patent granted upor to IBM, its successors and assigns; and we hereby rs Patent on said invention and we will execute all litted States and foreign applications when called upon
d and sealed:	
at	
on, 2003	Dengfeng Gao
	County of Pima Ihab F. Ilyas County of Tippecanoe Eileen Tien Lin County of Santa Clara Guy Maring Lohman County of Santa Clara Jun Rao County of Santa Clara Invented certain improvements in ating the Compilation Time of a Quer secuted, respectively, a United States

(2)	at	There is a second of the secon	
	on	, 2003	Ihab F. Ilyas
(3)	at <u>San Jose</u> , on <u>9-30</u>		Gileen Jien Lin
(4)	aton		Guy Maring Lohman
(5)	aton		Jun Rao

Whereas, we,

(1)	Dengfeng Gao	of Tucson		
	County of Pima	and State of AZ,		
(2)	Ihab F. Ilyas	of West Lafayette		
	County of Tippecanoe	and State of IN,	* * *	
(3)	Eileen Tien Lin	of San Jose		
	County of Santa Clara	and State of CA,		
(4)	Guy Maring Lohman	of San Jose		
	County of Santa Clara	and State of CA,		
(5)	Jun Rao	of San Jose		
` ,	County of Santa Clara	and State of CA,		
have	invented certain improvements in			
Estin	nating the Compilation Time of a Query	Optimizer		
and e	executed, respectively, a United States p	patent application therefore on		
(1)_	, 2003, (2)	, 2003, (3)	2003 (4)	
<u>30.</u>		, 2003.		
York to acc	reas, INTERNATIONAL BUSINESS Means, having a place of business at Armonk, quire the entire right, title and interest in the states and foreign patents to be obtained.	New York 10504, (hereinafter called the said application and invention, a	IBM), desires	
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.				
Signe	d and sealed:			
(1)	at			
	on, 2003	Dengfeng Gao		

(2)	at			
	on	, 2003	Ihab F. Ilyas	
(3)	at			
	on	, 2003	Eileen Tien Lin	
	S Y 0 - 1		M no . 20	
(4)	at San Jose CA on 30 September		Duy Maring Johnan	
	on SO September	, 2003	Guy Maring Lohman	
(5)	at			
	on	, 2003	Jun Rao	

Whereas, we,

(1)	Dengfeng Gao		of Tucson		i
(4)	County of Pima		and State o	of AZ,	
(2)	Ihab F. Ilyas		of West La	fayette	
	County of Tippecanoe		and State o	of IN,	
(3)	Eileen Tien Lin		of San Jose	•	
	County of Santa Clara		and State o	of CA,	
(4)	Guy Maring Lohman		of San Jose	<u>, </u>	
	County of Santa Clara		and State o		
(5)	Jun Rao		of San Jose	,	
` ,	County of Santa Clara		and State o		
have	invented certain improvemen	ts in			
Estim	nating the Compilation Time o	of a Query Optin	nizer		
and e	xecuted, respectively, a Unite	ed States patent a	application therefore	on	•
(1)_	, 2003, (2)		, 2003, (3)		, 2003, (4)
	, 2003, (2), 2003, (5)	9-30	, 2003.		_,, (, ,
York, to account of the analysis of the in	having a place of business at quire the entire right, title and d States and foreign patents to therefore, for a valuable constant and interest in the said application, and we request the Conventions set forth in said application.	Armonk, New interest in the same be obtained the ideration, receipted transfer to It tion and inventional priority resulting mmissioner of Plication to IBM,	York 10504, (hereing aid application and interefore; at whereof is hereby a BM, its successors and on therein disclosed a from the filing of statents to issue any Lits successors and as	after called IB nvention, and acknowledged ad assigns, the for the United aid United Sta etters Patent g ssigns; and we	M), desires to any I, we, the entire right, I States and ates granted upon thereby
paper	that IBM may apply for foreign so necessary in connection with so by IBM.	gn Letters Paten h the United Sta	t on said invention a tes and foreign appli	nd we will exc cations when	ecute all called upon
Signe	d and sealed:				
(1)	at			- Andrews	
•	on, 2	2003	Dengfeng Gao		

(2)	at	-	
	on	_, 2003	Ihab F. Ilyas
(3)	at		
	on	_, 2003	Eileen Tien Lin
(4)	at		
	on		Guy Maring Lohman
(5)	at San Jose CA		Rady
. ,	at <u>San Jose</u> CA on <u>Sep. 39</u>	_, 2003	Jun Rao

RECORDED: 02/18/2008