PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Louis Lu-Chen Hsu	10/12/2007
Jack Allan Mandelman	10/09/2007
William Robert Tonti	10/10/2007
Chih-Chao Yang	10/12/2007

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11875345

CORRESPONDENCE DATA

Fax Number: (507)253-2382

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

Phone: 507-253-4661

Email: dapeters@us.ibm.com

Correspondent Name: IBM Corporation

Address Line 1: 3605 Highway 52 North

Address Line 2: James R. Nock, Dept. 917

Address Line 4: Rochester, MINNESOTA 55901

ATTORNEY DOCKET NUMBER: ROC920060219US1

NAME OF SUBMITTER: James R. Nock

Total Attachments: 8

PATENT REEL: 019988 FRAME: 0155

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WHEREAS, we, Louis Lu-Chen Hsu, residing at Seven Crosby Court, Fishkill, N	<u>ew</u>
York 12524, Jack Allan Mandelman, residing at 11 Claremont Drive, Flat Rock, North Carolina 2	<u>8731</u>
William Robert Tonti, residing at Four Bluestem Road, Essex Junction, Vermont 05452, and Chil	<u>}-</u>
Chao Yang, residing at 29 Windham Hill Road, Glenmont, NY 12077 made certain new and useful	l
inventions and improvements for which we executed an application for Letters Patent of the United	State
on <u>10-12-2007</u> ,, and	·
respectively, which is entitled DESIGN STRUCTURES INCORPORATING INTERCONNEC	
STRUCTURES WITH LINER REPAIR LAYERS.	_

AND WHEREAS, <u>INTERNATIONAL BUSINESS MACHINES CORPORATION</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>New Orchard Road</u>, <u>Armonk</u>, <u>New York 10504</u> (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

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conveyed has been made to othe possessed by us.	ers by us and that full right to convey the same as herein expressed is
10 -12-2007 Date	Louis Lu-Chen Hsu
Date	Jack Allan Mandelman
Date	William Robert Tonti
Date	Chih-Chao Yang

AND, furthermore we covenant and agree with said Assignee, its successors and assigns,

that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein

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WHEREAS, we, Louis Lu-Chen Hsu, residing at Seven Crosby Court, Fishkill, New Yorl
12524, Jack Allan Mandelman, residing at 11 Claremont Drive, Flat Rock, North Carolina 28731, Willian
Robert Tonti, residing at Four Bluestem Road, Essex Junction, Vermont 05452, and Chih-Chao Yang.
residing at 29 Windham Hill Road, Glenmont, NY 12077 made certain new and useful inventions and
improvements for which we executed an application for Letters Patent of the United States on
, October 9, 2007 ,, and,
respectively, which is entitled DESIGN STRUCTURES INCORPORATING INTERCONNECT
STRUCTURES WITH LINER REPAIR LAYERS.

AND WHEREAS, <u>INTERNATIONAL BUSINESS MACHINES CORPORATION</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>New Orchard Road</u>, <u>Armonk</u>, <u>New York 10504</u> (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor:

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

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Date	Louis Lu-Chen Hsu	
9007 2007	Jack allan Mandelm. (Jack Allan Mandelman	
Date	(Jack Allan Mandelman	
Date	William Robert Tonti	
	William Robbit Fold	
Date	Chih-Chao Yang	

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WHEREAS, we, Louis Lu-Chen Hsu, residing at Seven Crosby Court, Fishkill, New York
12524, Jack Allan Mandelman, residing at 11 Claremont Drive, Flat Rock, North Carolina 28731, William
Robert Tonti, residing at Four Bluestem Road, Essex Junction, Vermont 05452, and Chih-Chao Yang, residing at
56 Scenic Drive, Poughkeepsie, New York 12063 made certain new and useful inventions and improvements for
which we executed an application for Letters Patent of the United States on, 10-10-2007 and, respectively, which is entitled
DESIGN STRUCTURES INCORPORATING INTERCONNECT STRUCTURES WITH LINER REPAIR
LAYERS.

AND WHEREAS, <u>INTERNATIONAL BUSINESS MACHINES CORPORATION</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>New Orchard Road</u>, <u>Armonk</u>, <u>New York 10504</u> (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the said improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

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Date	Louis Lu-Chen Hsu
Date	Jack Allan Mandelman
10/10/202 Date	William Robert Tonti
Date	Chih-Chao Yang

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REEL: 019988 FRAME: 0162

WHEREAS, we, <u>Louis Lu</u>	-Chen Hsu, residing at Seven Crosby Court, Fishkill, New
<u>York 12524, <mark>Jack Allan Mandelman</mark>, res</u> i	ding at 11 Claremont Drive, Flat Rock, North Carolina 28731
William Robert Tonti, residing at Four Bl	uestem Road, Essex Junction, Vermont 05452, and Chih-
Chao Yang, residing at 29 Windham Hill I	Road, Glenmont, NY 12077 made certain new and useful
inventions and improvements for which we	executed an application for Letters Patent of the United State
on,	, and 10-12-2007
	TRUCTURES INCORPORATING INTERCONNECT
STRUCTURES WITH LINER REPAIR	LAYERS.

AND WHEREAS, <u>INTERNATIONAL BUSINESS MACHINES CORPORATION</u>, a corporation organized and existing under and by virtue of the laws of the State of <u>New York</u>, and having an office and place of business at <u>New Orchard Road</u>, <u>Armonk</u>, <u>New York 10504</u> (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the said application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the said Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the said Assignee, its successors and assigns.

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Date	Louis Lu-Chen Hsu
Date	Jack Alian Mandelman
Date	William Robert Tonti
Oct. 12, >00) Date	Chih-Chao Yang

AND, furthermore we covenant and agree with said Assignee, its successors and assigns,

that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is

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possessed by us.