05-08-2003 Form PTO-1595 U.S. DEPARTMENT OF COMMERCE lev. 10/02) U.S. Patent and Trademark Office No. 0651-0027 (exp. 6/30/2005) 102443341 To the honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 2. Name and address of receiving party(ies) ame of conveying party(ies): Name: Taiwan Semiconductor Manufacturing Company, 5.5.03 LUP CHEONG PATRICK HUNG JOHN KAO FRANK SUNG YU-JEN CHEN EDWIN D. LIOU Internal Address: MING-HSIN THOMAS CHEN JEFFREY LIOU YU YONG SHEN CHUN-CHO CHEN Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance: X Assignment Merger Street Address: No. 6, Li-Hsin Rd. 6 Security Agreement Change of Name Science-Based Industrial Park Other\_\_ City: Hsin-Chu State: Taiwan Zip: 300-77 Execution Date: 4/14/2003, 4/15/2003, 4/16/2003 Additional name(s) & address(es) attached? Yes X No Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: \_\_\_ Patent Application No.(s) 10/340,559 B. Patent No.(s) Additional numbers attached? Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: 1 Name: Steven H. Slater 7. Total fee (37 CFR 3.41). . . . . . . . . . \$ \_\_40.00 Slater & Matsil, L.L.P. Enclosed Internal Address: Authorized to be charged to deposit account 8. Deposit account number: Street Address:17950 Preston Rd. 50-1065 Suite 1000 City: Dallas State: Texas Zip: 75252-5793 (Attach duplicate copy of this page if paying by deposit account) DO NOT USE THIS SPACE 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. Barry W. Dove

05/07/2003

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Name of Person Signing

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

Total number of pages including cover sheet, attachments, and documents: 4

PATENT

REEL: 014035 FRAME: 0716

FROM

00219727329218

P.04

ATTORNEY DOCKET NO. TSMC2002-0958

## **ASSIGNMENT**

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS. Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan 300, R.O.C., Is desirous of acquiring my entire right, title and interest In and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned. to the said TSMC, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	System, Method, and User Interface Providing Customized Document Portfolio Management					
SIGNATURE OF INVENTOR AND NAME	Lup Cheong Patrick Hung	John Row	Frank Sung	YuJen Chen		
DATE	April 14, Long	(Apr 15,000)	Mpn 15,000}	(4/11/202)		
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan	Hsin-Chu, Taiwan	Hsin-Chu, Taiwan	Taipei, Taiwan		

PATENT

REEL: 014035 FRAME: 0717

24-APR-2003 20:11

FROM

P. 05

ATTORNEY DOCKET NO. TSMC2002-0958

## ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Talwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan 300, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged. I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and Interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, relssues, substitutions, continuations, and extensions thereof, and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, as assignee of my entire right, title and Interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	System, Method, and User Interface Providing Customized Document Portfolio Management					
SIGNATURE OF INVENTOR AND NAME	EDWIN D. LIOU	M. A. T. Co MING-HSIN THOMAS CHEN	MANN LINE SEFFREY LIOU	YU YONG SHEN		
DATE	4/14/203	4/16/2003	4/16/2003	7 4/16/2003 WYS.		
RESIDENCE (City, County, State)	Taipei, Taiwan, Talwan	Hsin-Chu, Taiwan, Taiwan	Hsin-Chu, Taiwan, Talwan	Taipei, Taiwan, Taiwan		

PATENT **REEL: 014035 FRAME: 0718** 

TO 00219727329218

P.06

ATTORNEY DOCKET NO. TSMC2002-0958

## ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and

WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at 121, Park Avenue 3, Science-Based Industrial Park, Hsin-Chu, Taiwan 300, R.O.C., is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TSMC, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TSMC, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to TSMC, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said TSMC, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TSMC, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	System, Method, and User Interface Providing Customized Document Portfolio Management				
SIGNATURE OF INVENTOR AND NAME	CHUN-CHO CHEN				
DATE	April/5th, 2003				
RESIDENCE (City, County, State)	Hsin-Chu, Taiwan, Taiwan				

PATENT TOTAL P. 06
REEL: 014035 FRAME: 0719