In place of Form PTO-1595 Docket No.AUS920020076US1 RECORDATION FORM COVER SHEET 04-24-2002 To the Assistant Commissioner of Pa ached original 102065230 documents or copy thereof. 2. Name and address of 1. Name of conveying party(ies): receiving party: Charles J. Alpert International Business Gi-Joon Nam Machines Corporation Paul G. Villarrubia New Orchard Road Armonk, New York 10504 3. Nature of conveyance: X Assignment Execution Date: April $_{4}$, 2002. 4. 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 4/4/02A. Patent Application No.(s) B. Patent No.(s) 6. Total number of applications 5. Name and address of party to whom and patents involved: correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41) \$ 40.00 IBM Corp., Casimer Salys Authorized to be charged to Intellectual Property Law Deposit Account Internal Zip 4054 11400 Burnet Road Austin, TX 78758 (512) 823-0092 8. Deposit account number: 09-0447 DO NOT USE THIS SPACE 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. Casimer K. Salys Name of Person Signing Total number of pages including cover sheet: 2 00000141 090447 04/23/2002 TDIAZ1 40.00 CH 01 FC:581

> PATENT REEL: 012811 FRAME: 0462

ASSIGNMENT

Whereas, we,

- (1) Charles J. Alpert of Austin, County of Travis and State of Texas,
- (2) Gi-Joon Nam of Austin, County of Travis and State of Texas, and
- (3) Paul G. Villarrubia of Austin, County of Williamson and State of Texas,

have invented certain improvements in ANALYTICAL CONSTRAINT GENERATION FOR CUT-BASED GLOBAL PLACEMENT

and executed a United States patent application therefore on (1) April 4 ,2002; and (2) April 4 , 2002; and (3) April 7 , 2002.

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 therefore:

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, 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 I 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 I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed at Austin, Texas, on April 4, 2002.

Charles J. Alpert (1)

(2) Signed at Austin, Texas, on April 4, 2002.

Nom Ce

Signed at Austin, Texas, on April $\frac{9}{4}$, 2002. (3)

RECORDED: 04/11/2002

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