| FORM PTO-1595 REC 12-02-20 | 12736/10 T U.S. Department of Commerce |
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| (Rev. 6-93) OMB No. 0651-0011 (exp. 4/9) 2603 1026125 | Patent and Trademark Office |
| To the Honorable Commissioner of Patents and Trademarks: Please record the attach | ed original documents or copy thereof |
| Name of conveying party(ies): Michael MARKOV; Vadim MOTTL; and Ilya MUCHNIK Additional name(s) of conveying parties attached? Yes No | 2. Name and address of receiving party(ies) Name: <u>Markov International Processes LLC</u> Address: <u>428 Springfield Avenue</u> Summit, New Jersey 07901 |
| 3. Nature of conveyence: ☑ Assignment □ Merger □ Security Agreement □ Change of Name □ Other: Execution date(s): September 14, 20 and 21, 2003. | Additional name(s) & address(es) attached? □ Yes ⊠ No |
| 4. Application numbers or patent numbers: If this document is being filed together with a new application, the | execution date of the application is: |
| A. Patent Applications: 60/378,562; and 10/431,838 | B. Patent No.(s) |
| Additional Numbers | attached? 🗆 Yes 🛽 No |
| 5. Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents fivolved: 02 |
| Name: <u>Dalia S. Grimbreg, Esq.</u> Internal Address: <u>KENYON & KENYON</u> | 7. Total fee (37 C.F.R. 3.41) |
| Street Address: <u>One Broadway</u> City: <u>New York</u> State: <u>New York</u> ZIP: <u>10004</u> | 8. Deposit account number: <u>11-0600</u> (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, he foregoing information is tr document. <u>Dalia S. Grimberg (Reg. No. 47,611)</u> Name of Person Signing Signature | ue and correct and any attached copy is a true copy of the original <u>November 25, 2003</u> Date Total Number of pages comprising cover sheet and documer |
| OMP No. 0651 0011 (over 4/04) | Total reaction of pages comprising cover sheet and documen |
| OMB No. 0651-0011 (exp. 4/94) | |
| Mail documents to be recorded with required cover sheet information to: Mail Stop Assignment Recordation Sel Director of the US Patent and Tradema P.O. Box 1450 Alexandria, VA 22313-1450 | |
| 1/2003 LMUELLER 00000192 110600 60378562 C:8021 40.00 DA | |

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ASSIGNMENT

WHEREAS, we,

Michael MARKOV 81 Baltusrol Way Short Hills, New Jersey 07078

Citizenship: United States

Vadim MOTTL Oruzheynaya St. 5 Building 1 Tula 300600, Russia

Citizenship: Russia

Ilya MUCHNIK 99 Pond Avenue Brookline, Massachusetts 02445

Citizenship: United States

have made new and useful inventions and discoveries in A METHOD AND SYSTEM TO SOLVE **DYNAMIC MULTI-FACTOR MODELS IN FINANCE**, for which a provisional application for Letters Patent was filed with the U.S. Patent and Trademark Office on May 7, 2002 as Serial No. 60/378,562, and for which a non-provisional application for the Letters Patent was filed with the U.S. Patent and Trademark Office on May 7, 2003 as Serial No. 10/431,838, claiming priority to the U.S. Provisional Patent Application Serial No. 60/378,562; and

WHEREAS Markov Processes International, LLC, a corporation organized and existing under the laws of the state of New Jersey, and having a place of business at 428 Springfield Avenue, Summit, New Jersey 07901, and who, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits, and privileges hereinafter recited,

NOW, THEREFORE, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which we hereby acknowledge, we hereby, without reservations:

1. Assign, transfer, and convey to Assignee our entire right, title, and interest in and to said inventions and discoveries, said applications for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in any and all countries, including all divisional, renewal, substitute, continuation, and Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent,

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reissues, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications, and said Letters Patent.

2. Authorize Assignee to file patent applications in any or all countries for any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under an International Convention or otherwise.

3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of our entire right, title, and interest therein or otherwise as Assignce may direct.

4. Warrant that we have not conveyed to others any right, title, or interest in said inventions, discoveries, applications, or patents or any license to use the same or to make, use, or sell anything embodying or utilizing any of said inventions or discoveries; that we have good right to assign the same to Assignee without encumbrance; and that we are aware of no claim to the contrary.

5. Bind our heirs, legal representatives, and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications, and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same could have been held and enjoyed by us, our heirs, legal representatives, and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; to furnish Assignee with any and all documents, photographs, models, samples, and other physical exhibits in our control or in the control of my heirs, legal representatives, or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries; and to testify to the same in any interference, arbitration, or litigation.

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IN TESTIMONY WHEREOF, we have hereunto set our hands and seals this _____tday of november____, 2003.

Michael MARKOV

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IN TESTIMONY WHEREOF, we have hereunto set our hands and seals this $\frac{14}{Movember}$ day of $\frac{14}{Movember}$, 2003.

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Vadim MOTTL

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IN TESTIMONY WHEREOF, we have hereunto set our hands and seals this $\frac{20}{May}$ day of $Mayer_{1}$, 2003.

Mya Neudure

Ilya MUC

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RECORDED: 11/26/2003