

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1149	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT DEFY MEDIA, LLC
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY	<input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT  ORDERED, ADJUDGED AND DECREED that all claims asserted in this suit between Plaintiff Guada Technologies LLC and Defendant Defy Media, LLC, are hereby DISMISSED WITH PREJUDICE.
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CLERK 	(BY) DEPUTY CLERK ch	DATE 2/3/17
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

AO 120 (Rev. 08/10)

<b>TO:</b> <p style="text-align: center;"><b>Mail Stop 8</b>  <b>Director of the U.S. Patent and Trademark Office</b>  <b>P.O. Box 1450</b>  <b>Alexandria, VA 22313-1450</b></p>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1157	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT SLACKER, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

<b>DECISION/JUDGEMENT</b>  ORDERED, ADJUDGED AND DECREED that all claims asserted in this suit by Plaintiff Guada Technologies LLC are hereby <b>DISMISSED WITH PREJUDICE</b>
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CLERK <i>David A. O'foole</i>	(BY) DEPUTY CLERK ch	DATE 1/19/17
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director  
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1148	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT BATANGA, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY	<input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT It is therefore ORDERED, ADJUDGED AND DECREED that all claims asserted in this suit between Plaintiff Guada Technologies LLC and Defendant Batanga, Inc., are hereby DISMISSED WITH PREJUDICE.
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CLERK 	(BY) DEPUTY CLERK Nakisha Love	DATE 12/15/16
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1159	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT SPOTIFY USA INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading		
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK	
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1158	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT SMULE, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading		
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK	
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DECISION/JUDGEMENT
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1157	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT SLACKER, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1156	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT RHAPSODY INTERNATIONAL INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1155	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT RELIANCE MAJESTIC HOLDINGS, LLC
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1154	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT PANDORA MEDIA, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1152	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT MLB ADVANCED MEDIA, L.P.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1150	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT EMUSIC.COM INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following  
 Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.):

DOCKET NO. 2:16-cv-1151	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT IHEARTMEDIA, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
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CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1156	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT RHAPSODY INTERNATIONAL INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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In the above—entitled case, the following patent(s)/ trademark(s) have been included:

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PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK HOLDER OF PATENT OR TRADEMARK
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In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT It is therefore ORDERED, ADJUDGED AND DECREED that all claims asserted in this suit between Plaintiff Guada Technologies LLC and Defendant Rhapsody International Inc. are hereby DISMISSED WITHOUT PREJUDICE.
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CLERK 	(BY) DEPUTY CLERK NKL	DATE 11/21/16
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

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Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1154	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT PANDORA MEDIA, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
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CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
---	---

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1155	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT RELIANCE MAJESTIC HOLDINGS, LLC
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK
1	
2	
3	
4	
5	

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
--------------------

CLERK	(BY) DEPUTY CLERK	DATE
-------	-------------------	------

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

AO 120 (Rev. 08/10)

TO: <b>Mail Stop 8</b> <b>Director of the U.S. Patent and Trademark Office</b> <b>P.O. Box 1450</b> <b>Alexandria, VA 22313-1450</b>	<b>REPORT ON THE</b> <b>FILING OR DETERMINATION OF AN</b> <b>ACTION REGARDING A PATENT OR</b> <b>TRADEMARK</b>
---	---

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court Eastern District of Texas, Marshall Division on the following

Trademarks or  Patents. (  the patent action involves 35 U.S.C. § 292.);

DOCKET NO. 2:16-cv-1156	DATE FILED 10/14/2016	U.S. DISTRICT COURT Eastern District of Texas, Marshall Division
PLAINTIFF GUADA TECHNOLOGIES LLC		DEFENDANT RHAPSODY INTERNATIONAL INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 7,231,379	6/12/2007	GUADA TECHNOLOGIES LLC
2		
3		
4		
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK
1	
2	
3	
4	
5	

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT
--------------------

CLERK	(BY) DEPUTY CLERK	DATE
-------	-------------------	------

Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy



## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4093276

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
NOEMA, INC.	09/19/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	GUADA TECHNOLOGIES LLC
<b>Street Address:</b>	2591 DALLAS PARKWAY, STE 300,PMB #846
<b>City:</b>	FRISCO
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75034
<b>PROPERTY NUMBERS Total: 4</b>	
<b>Property Type</b>	<b>Number</b>
Patent Number:	7231379
Patent Number:	7257574
Patent Number:	7260567
Patent Number:	7370056
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	thalfon@gmail.com
<b>Correspondent Name:</b>	GUADA TECHNOLOGIES LLC
<b>Address Line 1:</b>	2591 DALLAS PARKWAY, STE 300,PMB #846
<b>Address Line 4:</b>	FRISCO, TEXAS 75034
<b>NAME OF SUBMITTER:</b>	TIFFANY HALFON
<b>SIGNATURE:</b>	/Tiffany Halfon/
<b>DATE SIGNED:</b>	10/12/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).
<b>Total Attachments: 3</b>	
source=Exhibit A - Fully executed#page1.tif	
source=Exhibit A - Fully executed#page2.tif	
source=Exhibit A - Fully executed#page3.tif	

Exhibit A

**PATENT ASSIGNMENT**

For good and valuable consideration, the receipt of which is hereby acknowledged, Noema, Inc., a New York corporation located at 200 East 69th Street #24B, New York, NY 10021 ("*Assignor*"), does hereby assign, transfer, and convey unto Guada Technologies LLC, a Texas limited liability company, having an address at 2591 Dallas Parkway, Suite 300, PMB #846, Frisco, Texas 75034, ("*Assignee*"), or its designees, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "*Patent Rights*"):

(a) the patent applications and patents listed in the table below (the "*Patents*" or "*Patent*");

Patent(s) or Application No(s).	Country	Filing Date	Title of Patent(s) and First Named Inventor
7,231,379	US	11/19/2002	Navigation in a hierarchical structured transaction processing system Prashant Parikh
7,257,574	US	09/14/2004	Navigational learning in a structured transaction processing system Prashant Parikh
7,260,567	US	03/11/2004	Navigation in a hierarchical structured transaction processing system Prashant Parikh
7,370,056	US	03/11/2004	Navigation in a hierarchical structured transaction processing system Prashant Parikh

(b) all patents and patent applications (i) to which the Patent directly or indirectly claims priority, (ii) for which the Patent directly or indirectly forms a basis for priority, and/or (iii) that were co-owned applications that directly or indirectly incorporate by reference, or were incorporated by reference into, the Patent;

(c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);

Exhibit A

(d) all inventions, invention disclosures, and discoveries described in any item in any of the foregoing categories (a) through (c) and all other rights arising out of such inventions, invention disclosures, and discoveries;

(e) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (d), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;

(f) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, the Patents and/or any item in any of the foregoing categories (b) through (e), including, without limitation, all causes of action and other enforcement rights for

- (i) past, present, and future damages,
  - (ii) injunctive relief, and
  - (iii) any other remedies of any kind for past, present, and future infringement;
- and

(g) all rights to collect royalties and other payments under or on account of the Patent and/or any item in any of the foregoing categories (a) through (f).

Assignor represents, warrants and covenants that:

(1) Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into the Letter Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee; and

(2) Assignor owns, and by this document assigns to Assignee, all right, title, and interest to the Patent Rights, including, without limitation, all right, title, and interest to sue for infringement of the Patent Rights. Assignor has obtained and properly recorded previously executed assignments for the Patent Rights as necessary to fully perfect its rights and title therein in accordance with governing law and regulations in each respective jurisdiction. The Patent Rights are free and clear of all liens, claims, mortgages, security interests or other encumbrances, and restrictions. There are no actions, suits, investigations, claims or proceedings threatened, pending or in progress relating in any way to the Patent Rights. There are no existing contracts, agreements, options, commitments, proposals, bids, offers, or rights with, to, or in any person to acquire any of the Patent Rights.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Exhibit A

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

**ASSIGNOR: Noema, Inc.**

By: Prashant Parikh  
Name: PRASHANT PARIKH  
Title: CEO  
Date: 9/19/2016

**ASSIGNEE: Guada Technologies LLC**

By: Dipankar Halder  
Name: DIPANKAR HALDER  
Title: MANAGING MEMBER  
Date: 19, SEPTEMBER 2016



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., ISSUE DATE, PATENT NO., ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 10/299,359, 06/12/2007, 7231379, 4428-4001, 5023

27123 7590 05/23/2007
MORGAN & FINNEGAN, L.L.P.
3 WORLD FINANCIAL CENTER
NEW YORK, NY 10281-2101

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 485 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Prashant Parikh, New York, NY;
Stanley Peters, Menlo Park, CA;



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
27123	7590	03/30/2007	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			WU, YICUN	
			ART UNIT	PAPER NUMBER
			2165	
			MAIL DATE	DELIVERY MODE
			03/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental  
Notice of Allowability**

**Application No.**

10/299,359

**Applicant(s)**

PARIKH ET AL.

**Examiner**

Yicun Wu

**Art Unit**

2165

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to appeal brief filed 11/2/2007.
2.  The allowed claim(s) is/are 1-7.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date <u>1/19/2007</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____.</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
|---|---|

*Yicun Wu*  
patent Examiner  
Technology Center 2165

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION</b>	Attorney Docket: 4754-4000	Serial No. 10/299,359
	Applicant(s) Prashant Parikh and Stanley Peters	
	Filing Date: November 19, 2002	Group Art Unit: 2175

**U.S. PATENT DOCUMENTS**

Examiner Initial	Patent No./ Publication No.	Issue Date/ Publication Date	Name	Class	Sub-Class	Filing Date
<i>JP</i>	6,510,406 B1	January 21, 2003	Marchisio			March 22, 2000
<i>JP</i>	6,859,212 B2	February 22, 2005	Kumar et al.			April 4, 2001

**FOREIGN PATENT DOCUMENTS**

Examiner Initial	Patent Number	Publication Date	Country	Class	Sub-Class	Translation

**OTHER DOCUMENTS**


Examiner <i>JP</i>	Date Considered <i>3/25/07</i>
--------------------	--------------------------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUe: FEE  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27123 7590 01/25/2007

MORGAN & FINNEGAN, L.L.P.  
 3 WORLD FINANCIAL CENTER  
 NEW YORK, NY 10281-2101

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023

TITLE OF INVENTION: NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$0	\$1000	04/25/2007

EXAMINER	ART UNIT	CLASS-SUBCLASS
WU. YICUN	2165	707-003000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address Form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

Morgan & Finnegan LI

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: **Noema, Inc.**

(B) RESIDENCE: (CITY and STATE OR COUNTRY) **New York, NY**

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are submitted:

Issue Fee

Publication Fee (No small entity discount permitted)

Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

A check is enclosed.

Payment by credit card. Form PTO-2038 is attached.

The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number **13-4500** (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature  Date 2/26/07

Typed or printed name Richard Straussman Registration No. 39,847

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	10299359			
<b>Filing Date:</b>	19-Nov-2002			
<b>Title of Invention:</b>	NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM			
First Named Inventor/Applicant Name:	Prashant Parikh			
<b>Filer:</b>	Richard Straussman/Anita Coughlan			
<b>Attorney Docket Number:</b>	4428-4001			
Filed as Small Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	2501	1	700	700
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
<b>Total in USD (\$)</b>				<b>1000</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	1542556
<b>Application Number:</b>	10299359
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	5023
<b>Title of Invention:</b>	NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM
<b>First Named Inventor/Applicant Name:</b>	Prashant Parikh
<b>Customer Number:</b>	27123
<b>Filer:</b>	Richard Straussman/Anita Coughlan
<b>Filer Authorized By:</b>	Richard Straussman
<b>Attorney Docket Number:</b>	4428-4001
<b>Receipt Date:</b>	26-FEB-2007
<b>Filing Date:</b>	19-NOV-2002
<b>Time Stamp:</b>	10:36:35
<b>Application Type:</b>	Utility

### Payment information:

Submitted with Payment	yes
Payment was successfully received in RAM	\$ 1000
RAM confirmation Number	1476
Deposit Account	134500
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	4754_4000_Issue_Fee.pdf	137170	no	1
<b>Warnings:</b>					
<b>Information:</b>					
2	Fee Worksheet (PTO-06)	fee-info.pdf	8325	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			145495		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					



NOTICE OF ALLOWANCE AND FEE(S) DUE

27123 7590 01/25/2007  
MORGAN & FINNEGAN, L.L.P.  
3 WORLD FINANCIAL CENTER  
NEW YORK, NY 10281-2101

EXAMINER

WU, YICUN

ART UNIT PAPER NUMBER

2165  
DATE MAILED: 01/25/2007

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023

TITLE OF INVENTION: NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$0	\$1000	04/25/2007

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**  
**Commissioner for Patents**  
**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
**or Fax** **(571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27123                      7590                      01/25/2007

**MORGAN & FINNEGAN, L.L.P.**  
**3 WORLD FINANCIAL CENTER**  
**NEW YORK, NY 10281-2101**

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023

TITLE OF INVENTION: NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$0	\$1000	04/25/2007

EXAMINER	ART UNIT	CLASS-SUBCLASS
WU, YICUN	2165	707-003000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address Form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a <b>Customer Number</b> is required.</p>	<p>2. For printing on the patent front page, list</p> <p>(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1</p> <p>(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2</p> <p>_____ 3</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE \_\_\_\_\_ (B) RESIDENCE: (CITY and STATE OR COUNTRY) \_\_\_\_\_

Please check the appropriate assignee category or categories (will not be printed on the patent) :  Individual  Corporation or other private group entity  Government

<p>4a. The following fee(s) are submitted:</p> <p><input type="checkbox"/> Issue Fee</p> <p><input type="checkbox"/> Publication Fee (No small entity discount permitted)</p> <p><input type="checkbox"/> Advance Order - # of Copies _____</p>	<p>4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)</p> <p><input type="checkbox"/> A check is enclosed.</p> <p><input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.</p> <p><input type="checkbox"/> The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).</p>
---	--

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 10/299,359, 11/19/2002, Prashant Parikh, 4428-4001, 5023
Row 2: 27123, 7590, 01/25/2007, (Empty), (Empty)
Row 3: MORGAN & FINNEGAN, L.L.P., 3 WORLD FINANCIAL CENTER, NEW YORK, NY 10281-2101, (Empty), (Empty)
Row 4: (Empty), (Empty), (Empty), EXAMINER, (Empty)
Row 5: (Empty), (Empty), (Empty), WU, YICUN, (Empty)
Row 6: (Empty), (Empty), (Empty), ART UNIT, PAPER NUMBER
Row 7: (Empty), (Empty), (Empty), 2165, (Empty)
Row 8: (Empty), (Empty), (Empty), DATE MAILED: 01/25/2007, (Empty)

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 291 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 291 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.



<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/299,359	PARIKH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yicun Wu	2165	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to appeal brief filed 11/2/2006.
2.  The allowed claim(s) is/are 1-7.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|  | 9. <input type="checkbox"/> Other _____.   |

*Ym*  
 Patent Examiner  
 Technology Center 2100



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Bib Data Sheet


CONFIRMATION NO. 5023

<b>SERIAL NUMBER</b> 10/299,359	<b>FILING OR 371(c) DATE</b> 11/19/2002 <b>RULE</b>	<b>CLASS</b> 707	<b>GROUP ART UNIT</b> 2165	<b>ATTORNEY DOCKET NO.</b> 4428-4001
<b>APPLICANTS</b> Prashant Parikh, New York, NY; Stanley Peters, Menlo Park, CA;				
** CONTINUING DATA ***** <i>NOTE</i> *****				
** FOREIGN APPLICATIONS ***** <i>NOTE</i> *****				
<b>IF REQUIRED, FOREIGN FILING LICENSE GRANTED** SMALL ENTITY **</b> ** 12/30/2002				
Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance	<b>STATE OR COUNTRY</b> NY	<b>SHEETS DRAWING</b> 11	<b>TOTAL CLAIMS</b> 26
Verified and Acknowledged	Examiner's Signature <i>YH</i> Initials <i>JP</i>			<b>INDEPENDENT CLAIMS</b> 6
<b>ADDRESS</b> 27123				
<b>TITLE</b> Navigation in a hierarchical structured transaction processing system				
<b>FILING FEE RECEIVED</b> 550	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue ) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit	

<b>Issue Classification</b> 	<b>Application/Control No.</b> 10/299,359	<b>Applicant(s)/Patent under Reexamination</b> PARIKH ET AL.
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2165

ISSUE CLASSIFICATION											
ORIGINAL					INTERNATIONAL CLASSIFICATION						
CLASS		SUBCLASS			CLAIMED			NON-CLAIMED			
707		2			G	06	F	17	/30		
<b>CROSS REFERENCES</b>										/	
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)									/	
707	6	3	4							/	
										/	
										/	
										/	
										/	
					<b>Total Claims Allowed: 7</b>						
(Assistant Examiner) (Date)					O.G. Print Claim(s)					O.G. Print Fig.	
<i>A. White</i> (Legal Instruments Examiner) (Date)					<i>Yuler</i> (Primary Examiner) (Date)					1	9

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original
1	(1)	31	61	91	121	151	181
2	2	32	62	92	122	152	182
3	3	33	63	93	123	153	183
4	4	34	64	94	124	154	184
5	5	35	65	95	125	155	185
6	6	36	66	96	126	156	186
7	(7)	37	67	97	127	157	187
	8	38	68	98	128	158	188
	9	39	69	99	129	159	189
	10	40	70	100	130	160	190
	11	41	71	101	131	161	191
	12	42	72	102	132	162	192
	13	43	73	103	133	163	193
	14	44	74	104	134	164	194
	15	45	75	105	135	165	195
	16	46	76	106	136	166	196
	17	47	77	107	137	167	197
	18	48	78	108	138	168	198
	19	49	79	109	139	169	199
	20	50	80	110	140	170	200
	21	51	81	111	141	171	201
	22	52	82	112	142	172	202
	23	53	83	113	143	173	203
	24	54	84	114	144	174	204
	25	55	85	115	145	175	205
	26	56	86	116	146	176	206
	27	57	87	117	147	177	207
	28	58	88	118	148	178	208
	29	59	89	119	149	179	209
	30	60	90	120	150	180	210

<b>Search Notes</b> 	<b>Application/Control No.</b>		<b>Applicant(s)/Patent under Reexamination</b>	
	10/299,359		PARIKH ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
Yicun Wu		2165		

SEARCHED			
Class	Subclass	Date	Examiner
707	1,2,3,4 5,6,7,8 9,10, 100	2/18/2004	YW
	101 102		
	103 104.1		
↓			
updated	search	11/25/2004	
updated	search	8/16/2005	↓
updated	search	1/19/07	yn

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
707	2,3,4,6	12/19/07	yn

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR
inventor search (double patenting) uspto uspgpub usocr epo jpo ibmtech derwent	2/18/2004	YW
acm ieee npl internet Search strategy attached	↓	
consulted Dov Popovici	2/18/2004	
updated search	11/25/2004	
updated search	8/16/2005	↓
consulted Tod Swann John Eulawhee A	1/19/2007	yn
appeal Conf. Eddie Lee Jeff Grathin	1/19/07	yn
appeal Conf Joe Dixon Jeff Grathin	10/12/2006	yn
Updated Search	1/19/07	yn

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s)** : Prashant Parikh and Stanley Peters    **Confirmation No.:** 5023  
**Serial No.** : 10/299,359    **Group Art Unit:** 2175  
**Filed** : November 19, 2002    **Examiner:** Yicun Wu  
**For** : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

1.  For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:  

---
2.  For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3.  Any copy of the items listed on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
4.  No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:
  - 37 C.F.R. §1.97(b)(1), within three months of the filing date of a national application other than a CPA; or
  - 37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or

- 37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits; or
- 37 C.F.R. §1.97(b)(4) before the mailing date of a first office action after the filing of an RCE under §1.114.
5.  No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6.  A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):
- A check in the amount of \$180.00 is enclosed in payment of the fee.
- Charge the fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_.
7.  **A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:**
- a. one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
- b. the fee due under 37 C.F.R. §1.17(p) which is paid as set forth in paragraph 11 below.
8.  This Information Disclosure Statement is being filed in compliance with:
- a.  37 C.F.R. §1.313(b)(3) or §1.313(c)(1), after the issue fee has been paid and information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h);
- b.  37 C.F.R. §1.313(c)(2) or §1.313(c)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Request for Continued Examination (RCE) or a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h).
- c.  The fee due under 37 C.F.R. §§1.17(h) is paid as set forth in paragraph 11 below.

9.  I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.**
10.  This document is accompanied by  a Search Report  Communication which was cited in a corresponding  PCT or  Foreign counterpart application
11.  A check in the amount of \$\_\_\_\_\_ is enclosed in payment of the fees due under 37 C.F.R. §§1.17(h) and 1.17(p).
- Charge the fees due under 37 C.F.R. §§1.17(h) and 1.17(p) to Deposit Account No. 13-4500, Order No. 4754-4000.**
- The Commissioner is hereby authorized to charge any additional fees which may be required for this Information Disclosure Statement, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4754-4000.**

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: January 19, 2007

By: \_\_\_\_\_

Richard Straussman  
Registration No. 39,847

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.  
3 World Financial Center  
New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile

<b>FORM PTO-1449</b>  <b>INFORMATION DISCLOSURE CITATION</b>	Attorney Docket: <b>4754-4000</b>	Serial No. <b>10/299,359</b>
	Applicant(s) <b>Prashant Parikh and Stanley Peters</b>	
	Filing Date: <b>November 19, 2002</b>	Group Art Unit: <b>2175</b>

U.S. PATENT DOCUMENTS						
Examiner Initial	Patent No./ Publication No.	Issue Date/ Publication Date	Name	Class	Sub-Class	Filing Date
	6,510,406 B1	January 21, 2003	Marchisio			March 22, 2000
	6,859,212 B2	February 22, 2005	Kumar et al.			April 4, 2001

FOREIGN PATENT DOCUMENTS						
Examiner Initial	Patent Number	Publication Date	Country	Class	Sub-Class	Translation

OTHER DOCUMENTS	
Examiner	Date Considered
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	10299359			
<b>Filing Date:</b>	19-Nov-2002			
<b>Title of Invention:</b>	Navigation in a hierarchical structured transaction processing system			
First Named Inventor/Applicant Name:	Prashant Parikh			
<b>Filer:</b>	Richard Straussman/Anita Coughlan			
<b>Attorney Docket Number:</b>	4428-4001			
Filed as Large Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
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<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
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## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	1451773
<b>Application Number:</b>	10299359
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	5023
<b>Title of Invention:</b>	Navigation in a hierarchical structured transaction processing system
<b>First Named Inventor/Applicant Name:</b>	Prashant Parikh
<b>Customer Number:</b>	27123
<b>Filer:</b>	Richard Straussman/Anita Coughlan
<b>Filer Authorized By:</b>	Richard Straussman
<b>Attorney Docket Number:</b>	4428-4001
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<b>Application Type:</b>	Utility

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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 and 1.17	

### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed	4754_4000_IDS.pdf	258116	no	4
<b>Warnings:</b>					
<b>Information:</b>					
This is not an USPTO supplied IDS fillable form					
2	Fee Worksheet (PTO-06)	fee-info.pdf	8188	no	2
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			266304		
<p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p>					



Docket No. 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Application No.** : 10/299,359  
**Applicant(s)** : Prashant Parikh *et al.*  
**Filed** : November 19, 2002  
**For** : NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM  
**Group Art Unit** : 2175  
**Examiner** : Wu, Yicun  
**Docket No.** : 4754-4000  
**Customer No.** : 27123

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Date of Deposit: November 2, 2006

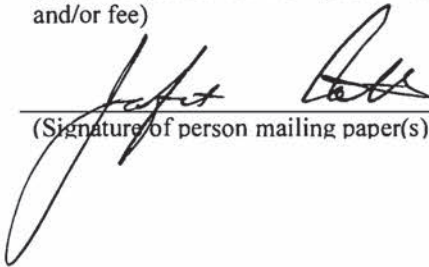
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1. Response to Non-Compliant Appeal Brief Pursuant To 37 C.F.R. § 41.37 (5 pages); and
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is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Commissioner of Patent, P.O. Box 1450, Alexandria, VA 22313-1450.

Jafet Cotto

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 (Signature of person mailing paper(s) and/or fee)

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11-06-06

AF/IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application No. : 10/299,359  
 Applicant(s) : Prashant Parikh *et al.*  
 Filed : November 19, 2002  
 For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
 TRANSACTION PROCESSING SYSTEM  
 Group Art Unit : 2175  
 Examiner : Wu, Yicun  
 Docket No. : 4754-4000  
 Customer No. : 27123

**RESPONSE TO NON-COMPLIANT APPEAL BRIEF**  
**PURSUANT TO 37 C.F.R. § 41.37**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REMARKS**

This responds to the "Notification of Non-Compliant Appeal Brief (37 CFR 41.37).

The undersigned does not understand the basis for the Notification in that: (a) neither of the independent claims, claims 1 & 7, contain any elements that are expressed in the means-plus-function or step-plus-function form allowed by 35 U.S.C. §112, ¶6, and (b) the brief does contain a concise explanation of the subject matter of claims 1 and 7 at beginning at just above the middle of page 4 and ending 5 lines down on page 6. Moreover, that explanation includes references to the specification and figures as required.

The undersigned has rigorously reviewed the CFR and MPEP in this regard and, absent further explanation, presumes that the basis for the Notification is that references to the specification are provided by reference to paragraph rather than specific lines.

Notwithstanding the hyper-technical nature of such a distinction, consistent with MPEP 1205.03, a replacement for the section previously submitted is provided below that essentially reproduces the prior submission but adds a heading "The Independent Claims", provides additional non-exhaustive references and now includes line number references in instances where paragraph numbers were previously provided.

In the event that this is not what the Office intended, it is respectfully requested that further elaboration be provided so that it is possible to comply in a meaningful manner.

\* \* \*

## **I. SUMMARY OF THE CLAIMED SUBJECT MATTER**

### **The Claimed Invention**

Appellant's claimed invention solves the inadequacies of prior art systems, by allowing the system to cause the user to "jump" from one node in the hierarchy to another node that is not directly connected to that node, without having to traverse through every intervening node in the path on the basis of a keyword association. See claims 1 and 7, page 5, lines 12-15. In other words, by implementing the claimed invention, the user is not bound by the rigid hierarchical arrangement because an input or response can cause the system to ignore the hierarchy and as a result of a keyword relationship cause a direct jump to a different non-directly connected node (page 5, lines 12-21), thereby bypassing intervening nodes that would otherwise need to be traversed according to approaches of the prior art ("jumping" in this context being defined both explicitly, and by implication, in the specification to mean a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (i.e., without

traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex)). See, e.g., FIG. 2, pg. 8, line 20 – pg. 9, line 2; pg. 3, lines 18-19; pg. 5, lines 16-21; and pg. 9, line 19 – pg. 11, line 5).

For example, in the simplified arrangement of Figure 1 which, for purposes of explanation, could represent an interactive voice response travel reservation system where the boxes labeled “2”, “4” and “5” might represent aspects involved with booking a domestic reservation and the boxes under the box labeled “3” might represent aspects involved with booking an international flight. See 1/27/05 Response to Final Office Action, e.g., p. 7. A customer wishing to book a flight to “San Jose” in Costa Rica could conceivably, unintentionally, navigate down through the nodes associated with a domestic booking by saying “San Jose” at an early point, only to realize, when hotels in California are mentioned, a mistake has been made. Id. At that point, with the conventional systems of the prior art, the person would have to either start all over or back-traverse through the options and try to navigate down through the international options by first mentioning “Costa Rica” or “International” at the starting point. Id. In contrast, with the methods of independent claim 1 or claim 7, the person might simply say, “not California, I want San Jose, Costa Rica” at which point, the system would cause the user to directly “jump” to the node under the box labeled “3” associated with booking travel in Costa Rica without forcing a back-navigation through all the intervening nodes or a restart. Id.

### **The Independent Claims**

Independent claim 1 is specifically directed to a method of navigating in a system having multiple navigable nodes interconnected in a hierarchical arrangement (pg. 7, lines 5 – 15, pg. 7, lines 5-6). The method includes: “receiving an input from a user of the system,” (pg.



10, lines 21-23, pg. 11, line 16, pg. 13, lines 10-12, pg. 16, lines 1-2, pg. 17, lines 9, 14, 18 & 20, and pg. 19, line 2) the input containing at least one word identifiable with at least one keyword from among multiple keywords (pg. 10, line 20 – pg. 11, line 4, pg. 11, lines 13-20, pg. 12, line 1 - pg. 14, line 3), identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node” (pg. 10, line 11 – pg. 16, line 15).

Independent claim 7 is directed to a method of navigating an arrangement of nodes representable as a hierarchical graph containing vertices, and edges connecting at least two of the vertices (pg. 7, lines 5 – 15, pg. 7, lines 5-6). The method includes: “receiving an input from a user as a response to a verbal description associated with a first vertex (pg. 10, lines 21-23, pg. 11, line 16, pg. 13, lines 10-12, pg. 16, lines 1-2, pg. 17, line 9, 14, 18 & 20, pg. 19, line 2); analyzing the input to identify a meaningful term that can be associated with at least one keyword (pg. 14, line 8 – pg. 16, line 15, pg. 36, line 1 - 14); selecting a vertex in the graph structure that is not connected by an edge to the first vertex. (pg. 5, lines 3-14)”; and jumping to the vertex (pg. 10, line 11 - page 16, line 15).

### CONCLUSION

Appellant respectfully submits that the Appeal Brief filed October 19, 2005 is compliant and, if not, then the instant submission makes it compliant. Accordingly, consideration of the appeal on the merits is now respectfully requested.

No extensions or fees are believed to be necessary for entry of this paper. In the event that a fee or extension is required, Applicants respectfully petition for such extension as is necessary for entry or consideration of this paper and the Commissioner is hereby authorized to

charge any additional fees which may be required to Deposit Account No. 13-4500, Order No. 4754-4000.

Respectfully submitted,

**MORGAN & FINNEGAN, L.L.P.**

Dated: November 2, 2005

By: 

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
27123	7590	10/02/2006	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			ART UNIT	PAPER NUMBER

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.


<b>Notification of Non-Compliant Appeal Brief (37 CFR 41.37)</b>	<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2165	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

The Appeal Brief filed on 19 October 2005 is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file an amended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1.  The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.
2.  The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).
3.  At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).
4.  (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).
5.  The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi)).
6.  The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).
7.  The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).
8.  The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).
9.  The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).
10.  Other (including any explanation in support of the above items):  
  
\_\_\_\_\_

  
**JEFFREY GATTEN**  
**SUPERVISORY/PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**

10-21-05

AF  
IRW

**PATENT**

Docket No. 4754-4000  
Application No. 10/299,359



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**Application No.** : 10/299,359  
**Applicant(s)** : Prashant Parikh *et al.*  
**Filed** : November 19, 2002  
**For** : NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM  
**Group Art Unit** : 2175  
**Examiner** : Wu, Yicun  
**Docket No.** : 4754-4000  
**Customer No.** : 27123

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41(a) (1)**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 C.F.R. § 41.39(b)(2) and § 41.41(a), Appellant hereby requests that the appeal be maintained and submits this Reply Brief in response to the Examiner's Answer. This Reply Brief is from a rejection designated as a new ground of rejection issued by the Patent Office in the Examiner's Answer mailed August 24, 2005 non-finally rejecting pending claims 1-7 in the above-identified patent application. Appellant submits herewith a Reply Brief Transmittal (in duplicate).

Based on the arguments presented herein, Appellant requests that the Board of Patent Appeals & Interferences order the rejection of the pending claims in the Examiner's Answer be withdrawn, that Appellant's claimed invention be confirmed as patentable, and the pending claims be allowed.

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**PATENT**

**Docket No. 4754-4000  
Application No. 10/299,359**

For the convenience of the Board, the following “Table of Contents” identifies where each section required by 37 C.F.R. § 41.37(c)(1)(i) - (c)(1)(x) begins. The Table of Contents is followed by a Table of Authorities identifying the legal support relied upon in the instant appeal.

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**I. REAL PARTY IN INTEREST**

The real party in interest of the patent application on appeal is its current assignee, Noema, Inc., a New York corporation by right of an assignment from Semiosis, Inc., a New York corporation to Noema, Inc. All right, title and interest to the above-identified patent application was assigned by the inventors, Prashant Parikh and Stanley Peters, to Semiosis, L.L.C. in an assignment document executed on November 18, 2002 and November 13, 2002, respectively, which assignment was recorded in the Patent and Trademark Office on May 27, 2003 at Reel 014100, Frame 0747. All right, title and interest to the above-identified patent application was subsequently assigned by Semiosis, L.L.C. to Semiosis, Inc. in an assignment document executed on December 1, 2004, which assignment was recorded in the Patent and Trademark Office on December 10, 2004 at Reel 016062, Frame 0250. All right, title and interest to the above-identified patent application was subsequently assigned by Semiosis, Inc. to Noema, Inc. in an assignment document executed on August 9, 2005, which assignment was submitted for recordation in the Patent and Trademark Office on August 18, 2005.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellant, Appellant's legal representative, or the inventors that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

There are 7 claims pending in this application, numbered 1-7. Claims 1-7 stand rejected under 35 U.S.C. § 103(a) and are the subject of this appeal, claims 8-26 having been cancelled in response to a restriction requirement and preserved in divisional applications. A complete copy of the claims involved in the appeal is attached hereto.



**IV. STATUS OF AMENDMENTS**

All prior amendments have been entered prior to the original appeal and are reflected in the present claims on appeal by reference to cancelled claims 8-26. No new amendments have been made since institution of the appeal.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

**Background**

The named inventors have devised certain methods for navigation in hierarchically arranged systems. See application, e.g., Fig. 1 and p. 7, ¶¶ 1-3. Examples of such systems include, but are not limited to, interactive voice response systems, interactive television program listing systems, geographic information systems, and automated voice response systems. See application, e.g., Figs. 3-6, and related text. Such systems are typically arranged so that a user navigates through the hierarchy through an iterative process of information presentation or query to the user and response by the user. Through this iterative presentation-response scheme the user will traverse through the system and, ideally, end up with a desirable result. See application, e.g., p. 2, ¶ 2. The most common example of such a system from the perspective of an average user is a telephone menu system whereby a caller is prompted, for example, to proceed in English press or say "1", to proceed in Spanish press "2" or say "dos", etc. If the user presses "1" they might receive a series of additional prompts, for example, for sales press or say "1", for returns press or say "2", for customer service press or say "3", etc. with each successive input causing the user to traverse to a new part (i.e. a new "node" (in this case the next menu)) of the hierarchy. Notably, the hierarchical configuration is rigidly fixed (i.e. each successive traversal is limited to either those options presented or abandoning the process and restarting) such that traversal can only occur between two connected vertexes or nodes (in the above example, via one of the available menu options).

A simplified example of such a hierarchically arranged system is shown in Figure 1, where each box represents a node in the hierarchy. See application, e.g., Fig. 1 and p. 7, ¶¶ 1-3. Such systems are inherently problematic in that if, for example, the user realizes that he made a mistake and thus caused a traversal down the wrong branch, prior art methods provide the user with very limited choices for correcting a mistake. The user must either exit the system altogether and start again from the beginning, or retrace their steps and back-navigate through each and every node until the top, or an appropriate “least common ancestor node” in the hierarchy is reached at which point the “downward” process through the system can begin again. See 1/27/05 Response to Final Office Action, e.g., p. 7.

**The Claimed Invention**

Appellant’s claimed invention solves these inadequacies of prior art systems, by allowing the system to cause the user to “jump” from one node in the hierarchy to another node that is not directly connected to that node, without having to traverse through every intervening node in the path on the basis of a keyword association. See claims 1 and 7. In other words, by implementing the claimed invention, the user is not bound by the rigid hierarchical arrangement because an input or response can cause the system to ignore the hierarchy and as a result of a keyword relationship cause a direct jump to a different non-directly connected node, thereby bypassing intervening nodes that would otherwise need to be traversed according to approaches of the prior art (“jumping” in this context being defined both explicitly, and by implication, in the specification to mean a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (i.e., without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex)). See application, e.g., FIG. 2, paragraph spanning pp. 8-9; p.3, 2nd to last ¶; p. 5, last ¶; and pp. 9-11, “Example 1.”

**PATENT**

**Docket No. 4754-4000  
Application No. 10/299,359**

For example, in the simplified arrangement of Figure 1 which, for purposes of explanation, could represent an interactive voice response travel reservation system where the boxes labeled “2”, “4” and “5” might represent aspects involved with booking a domestic reservation and the boxes under the box labeled “3” might represent aspects involved with booking an international flight. See 1/27/05 Response to Final Office Action, e.g., p. 7. A customer wishing to book a flight to “San Jose” in Costa Rica could conceivably, unintentionally, navigate down through the nodes associated with a domestic booking by saying “San Jose” at an early point, only to realize, when hotels in California are mentioned, a mistake has been made. Id. At that point, with the conventional systems of the prior art, the person would have to either start all over or back-traverse through the options and try to navigate down through the international options by first mentioning “Costa Rica” or “International” at the starting point. Id. In contrast, with the methods of independent claim 1 or claim 7, the person might simply say, “not California, I want San Jose, Costa Rica” at which point, the system would cause the user to directly “jump” to the node under the box labeled “3” associated with booking travel in Costa Rica without forcing a back-navigation through all the intervening nodes or a restart. Id.

Independent claim 1 is specifically directed to a method of navigating in a system having multiple navigable nodes interconnected in a hierarchical arrangement. The method includes: “receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords, identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.” Independent claim 7 is directed to a method of navigating an arrangement of nodes representable as a hierarchical graph

**PATENT**

**Docket No. 4754-4000  
Application No. 10/299,359**

containing vertices, and edges connecting at least two of the vertices. The method includes: “receiving an input from a user as a response to a verbal description associated with a first vertex; analyzing the input to identify a meaningful term that can be associated with at least one keyword; selecting a vertex in the graph structure that is not connected by an edge to the first vertex.”

**VI. GROUND OF REJECTIONS TO BE REVIEWED ON APPEAL**

Whether claims 1-7 are obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 6,676,159 to Lin et al. (“Lin”) in view of U.S. Patent No. 5,812,134 to Pooser et al. (“Pooser”).

**VII. APPELLANT’S ARGUMENT**

Claims 1-7 stand rejected, under 35 U.S.C. § 103(a), as being obvious over Lin et al. U.S. Pat. No. 6,676,159 (“Lin”) in view of Pooser et al. U.S. Patent No. 5,812,134 (“Pooser”).

Appellant respectfully traverses the rejection of claims 1-7 under 35 U.S.C. § 103(a). As demonstrated herein, the claim rejections of the Examiner’s Answer are improper, and should be withdrawn because: (A) the Examiner’s Answer obviousness rejections are based on legally and factually flawed analyses, because (1) the alleged obviousness rejections are based on a misrepresentation of Pooser, and (2) the Examiner’s Answer fails to make a *prima facie* obviousness case because the combination of Pooser with Lin does not render the claimed invention obvious. Accordingly, the rejection of these claims is improper, and should be withdrawn. See M.P.E.P. § 2143.

**A. The Patent Office’s Obviousness Rejections Are Based Upon Factually And Legally Flawed Analyses**

The Federal Circuit has clearly and repeatedly articulated the guidelines to be followed in rejecting a claim for obviousness.

The factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of

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record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.

In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citation omitted).

It is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a *prima facie* case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the Appellant to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Here, the Examiner's Answer rejection for obviousness is based on a flawed factual analysis of the teachings and suggestions of Pooser. As a result, the Examiner's Answer

has failed to establish a *prima facie* obviousness case because Pooser does not disclose what is attributed to it in the Examiner's Answer.

There is no motivation to combine Lin with Pooser in such a way as would result in the invention as claimed. Still further, no combination of Lin with Pooser, even if a motivation existed, would teach or suggest all the limitations of the pending claims in the manner claimed. See M.P.E.P. § 2143.03; In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

**1. The Patent Office Rejections Are In Part Based On A Mischaracterization Of Pooser**

The M.P.E.P. states:

As an initial matter, Office personnel should determine the scope and content of the relevant prior art. Each reference must qualify as prior art under 35 U.S.C. § 102 (e.g., Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1568, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987) ("Before answering Graham's 'content' inquiry, it must be known whether a patent or publication is in the prior art under 35 U.S.C. § 102.")) and should be in the field of applicant's endeavor, or be reasonably pertinent to the particular problem with which the inventor was concerned. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Accord, e.g., In re Clay, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

See M.P.E.P. § 2144.08.

**a. The Rejection Of Independent Claims 1 And 7 Is Factually Erroneous**

The Examiner's Answer erroneously contends that Pooser teaches "not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node (Pooser et al. col. 9, lines 26-29)." See Examiner's Answer at p. 4. However, the Examiner's Answer is unsound because Pooser fails to disclose the teaching attributed to it by the Examiner's Answer namely the system jumping the user to a "not directly connected to the first node" and that the at least one node "is associated with the at least one keyword."

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Contrary to the claimed invention, and as relied upon as a result of this claim limitation's absence in Lin (Examiner's Answer, page 4), Pooser's navigational system instead discloses the user, not a system, selecting nodes within the hierarchical structure and it does not have "keywords" involved in navigation.

Specifically, Pooser provides a three-dimensional graphical representation of information permitting a user to navigate through the hierarchy (col. 3, lines 3-17; col. 6, lines 37-43) by direct node selection. By presenting a visual representation, a user of Pooser is aware of all available nodes. This permits a "user to effectively visualize the overall size, complexity and organization of the entire information base... [and] relationships among various [nodes]" (col 3, lines 13-17). The user is "continuously provided with information regarding the 'position' of the information unit being currently examined relative" to every other node graphically (col. 3, lines 58-61). As a result, the "user is naturally guided on the path in a left-to-right direction" (col 3, lines 40-42) and thus, able to select a desired node from those displayed.

While Pooser's visual architecture arguably permits the user to selectively jump to a visually presented "related node on another thread" (col. 9, lines 26-29), such a jump is only possible because the "graphic display of the overall structure of the information base is always visible to the user" (col. 3, lines 61-63) [emphasis added]. Additionally, Pooser stipulates a user "will navigate... by pointing at, and selecting, the desired information unit via a position indicating icon" displayed as a visual representation (col. 10, lines 10-13). If the user lacked visual representation of the hierarchy provided by Pooser, yet still retained the ability to physically select a node, the user would be incapable of knowing what other nodes existed or where they were, precluding jumping to any unconnected node, let alone the user's desired node.

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Additionally, Pooser provides the user with general content of the node, to allow a user to select his perceived desired node, instead of the system selecting the “jumped” to node. Jumping in Pooser is not based upon use of keywords as described and claimed in the instant application. In fact, putting aside the user versus system distinction, there are no keywords in Pooser that are used to interrelate two unconnected nodes to each other such that arrival at one can cause a jump to the other.

In sum, Pooser merely discloses a method of displaying a graphical representation of a hierarchical structure, allowing a user to identify his “position” relative to the remainder of the database, and to manually select a specific displayed node. Neither of which have anything to do with the instant disclosure, let alone the invention as claimed.

With Appellant’s claimed invention, there is no graphical representation of the hierarchical arrangement. No information need be available to the user to enable the user to know of: (a) the existence of other nodes, (b) the user’s current location in the hierarchy (other than the start point), or (c) any keyword-based relationship among the nodes. A user presently located at an individual node gives the system an input, from that input either (i) a keyword association occurs and, as a result, the system then jumps the user to a node associated with the at least one keyword of the system’s selection (claim 1) or (ii) a “meaningful term” is identified from the input and then the system jumps the user “based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex” (claim 7).

In Appellant’s claimed invention, the user does not select, indeed they are unable to physically select, the desired node. The user is unaware and need not be aware of the overall



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hierarchal structure. The system jumps the user to another node which is not directly connected to the first node because, as set forth in the claim of the association.

This distinction is best demonstrated from the fact that, with the instant invention, even if the user was presented with a graphical representation of the hierarchy, a user's input at a node could squarely cause a jump to a node that would seem undesirable to the user based upon viewing the graphical representation but would, in fact, be more desirable, from an ultimate navigation standpoint, based upon the keyword association. To reiterate in summary, the user in Pooser is the one who selects the next node – it is not done on the basis of a keyword association as set forth in the claims and in Pooser, there are no keywords associating the various nodes to each other such that the system will jump a user from one of the nodes to another as a result of some keyword association.

There is a significant conceptual difference between the two approaches. The cited Lin and Pooser art, alone or in combination, are akin to providing a map of the United States to someone in New York wanting to travel West. Using the map, they can determine whether they want to go to Seattle, San Francisco or San Diego, the route they should take, and how they can proceed directly there.

In contrast, the instant invention is akin to placing someone in a car in New York, and having them start going West without a map or any idea where they will end up. If they arrive in Chicago and they provide an input that is associated with the keyword “warm,” they may be placed on an airplane to a new destination (i.e., a “jump”) and, upon arrival, given a new car to continue their journey. Notably, the destination arrived at by airplane might be Miami, Phoenix, Atlanta or Boston and would be of the system's choosing – not that of the traveler.

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Indeed the trip might involve several “jumps” some of which, from a map standpoint, might seem illogical or undesirable, but would get them to their goal faster.

Therefore, with respect to claim 1, the combination of Lin and Pooser does not disclose, teach or suggest the system jumping the user from a first node to another node “not directly connected to the first node,” as the Examiner’s Answer contends nor does it disclose jumping based upon a keyword association.

The rejection of independent claim 7 in the Examiner’s Answer is similarly erroneous and also improper, as it failed to even address the particular claim language of claim 7. This rejection is also prejudicial to Appellant, particularly on appeal, because the Examiner’s Answer failed to specifically address each of claim 7’s limitations, including, “receiving an input from a user as a response to a verbal description associated with a first vertex” (emphasis added) leaving Appellant to guess at what the Office might be thinking and rendering it impossible to substantively rebut this contention.

Notwithstanding this error of formality, as noted above the Examiner’s Answer consistently misconstrues Pooser’s navigational system and thus, fails to recognize that Pooser alone or in combination with Lin fails to disclose claim 7’s limitation of “selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex.” As noted above, Pooser merely adds a graphical depiction of a hierarchical scheme that allows a user to select any one of the displayed nodes. Again, Pooser’s user, not the system, selects the next vertex in the graph structure and no combination of Lin and Pooser would do otherwise.

Since the cited references (viz., Lin and Pooser), when taken alone or in combination, fail to teach, disclose, or suggest all of the claim elements of Appellant's claim 1 and 7 under 35 U.S.C. § 103(a), as set forth by the Examiner's Answer, the rejections are incomplete and thus, improper and must be withdrawn.

**b. Dependent Claim 2 Is Factually Independently Allowable**

In light of the above, all of the dependent claims are allowable by virtue of their dependency from claim 1 (directly or indirectly). Still further, dependent claim 2 is independently allowable on its own merits as detailed below.

The Examiner's Answer erroneously contends that Lin, as modified in view of Pooser, teaches "providing a verbal description associated with the at least one node to the user." See Examiner's Answer at p. 5.

First, the Examiner's Answer is a *non sequitur*. If providing a verbal description is *per se* well known in the art, then there is no need to cite Pooser. However the statement also reflects a mis-reading of the claim itself or ignores the actual words of the claim. Every limitation must be considered in addressing obviousness. In re Wilder, 429 F.2d 447, 450, 166 USPQ 545, 548 (CCPA 1970) ("every limitation positively recited in a claim must be given effect in order to determine what subject matter that claim defines"). Appellant's claimed "verbal description" limitation is an output, while Pooser merely addresses an input function.

Specifically, and contrary to the claimed invention, Pooser's navigational system teaches the selection of the desired node which may be performed by a "voice-controlled... input device" (col. 10, line 13) [emphasis added]. A graphical representation is still essential for the user's selection. The voice-controlled aspect in Pooser is more correctly equated to a mouse-click selection (col. 10, line 12).

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In the instant application, “verbal description” is defined as “a set of words relating to the subject matter whether presented audibly or in written form.” See application, e.g., p. 2, 2nd to last ¶. This referenced “verbal description” is the output of the system, not an input by the user. Such “verbal descriptions” may include a telephonic pre-recorded prompt or a written prompt. Id.; and p. 5, last ¶. The user’s input to the “verbal description” output by the system is what is interpreted by Appellant’s system. Appellant’s system then jumps the user to the not directly connected to the first node, but associated with the at least one keyword.

Since, the cited references (viz., Lin and Pooser), when taken alone or in combination, fail to teach, disclose, or suggest all of the claim elements of Appellant’s claim 2 under 35 U.S.C. § 103(a), the rejection should be withdrawn.

In sum, the Examiner’s Answer failed to properly determine the scope and content of Pooser, or it would have recognized that Pooser lacked the very teaching attributed to it. Accordingly, the obviousness rejections based on Pooser are improper as a matter of law and Patent Office practice, and thus should be reversed and the claims confirmed as patentable.

**2. The Patent Office Has Failed To Establish Prima Facie Obviousness**

An obviousness analysis places the initial burden to make out a *prima facie* case of obviousness on the Patent Office. Specifically, the M.P.E.P. states:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

See M.P.E.P. § 2142 (emphasis added).

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Here, there is neither motivation to combine, nor any reasonable expectation that the combination would result in the claimed subject matter. See M.P.E.P. §§ 2143-2143.02. A *prima facie* case requires both correct factual findings and a correct obviousness conclusion based on those findings.

Pooser does not teach or suggest the limitations attributed to it by the Examiner's Answer. As a result, no combination of Lin with Pooser would arrive at or suggest any of the pending claims. Therefore, the Examiner's Answer has failed to establish a *prima facie* obviousness case.

Indeed, the Examiner's Answer specifically combines Pooser with Lin, because Pooser allegedly teaches the claim limitations admittedly lacking from Lin, namely: "not directly connected to the first node but is associated with the at least one keyword, and jumping to at least one node." See Examiner's Answer at p. 4. Since Pooser neither teaches nor suggests "not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node" attributed to it, Pooser does not and cannot cure the deficiencies of Lin. Thus, the Examiner's Answer fails to establish a *prima facie* obviousness case, because no combination of Lin with Pooser would arrive at or suggest Appellant's claimed invention.

Moreover, as Pooser necessitates a graphical interface, irrespective of its visual configuration, it is ultimately the user which selects the jumped-to node based on its visual representation, not any keyword association. Additionally, of necessity from the above, there is no motivation to combine Lin and Pooser in such a manner as would achieve the claimed invention.

In sum, it is respectfully submitted that Lin in view of Pooser cannot render the claims obvious. Therefore, the Examiner's Answer has failed to establish a *prima facie*

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obviousness case. Accordingly, the obviousness rejections based on Lin in view of Pooser should be reversed and all the claims confirmed as patentable.

**CONCLUSION**

Appellant respectfully submits that the pending claims are not obvious, the rejection of the pending claims over Lin in view of Pooser be withdrawn, and thus, Appellant's claimed invention should be confirmed as patentable.

Respectfully submitted,

**MORGAN & FINNEGAN, L.L.P.**

Dated: October 19, 2005

By:



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VIII. CLAIMS APPENDIX

1. (original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:

at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,

identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and

jumping to the at least one node.

2. (original) The method of claim 1 further comprising:

providing a verbal description associated with the at least one node to the user.

3. (original) The method of claim 1 further comprising:

searching a thesaurus correlating keywords with synonyms.

4. (original) The method of claim 3 wherein the searching further comprises:

identifying the at least one word as synonymous with the at least one keyword.

5. (original) The method of claim 1 further comprising:

determining that the at least one word is neither a keyword nor a synonym of any keyword; and

learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords.

6. (original) The method of claim 5 further comprising:

adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

Claims 8 through 26 (Cancelled).





**Docket No.: 4754-4000**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

**Application No.** : 10/299,359  
**Applicant(s)** : Prashant Parikh *et al.*  
**Filed** : November 19, 2002  
**For** : NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM  
**Group Art Unit** : 2175  
**Examiner** : Wu, Yicun  
**Docket No.** : 4754-4000  
**Customer No.** : 27123

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I hereby certify that the following attached paper(s) and/or fee

1. Reply Brief Pursuant To 37 C.F.R. § 41.41(a) (1) (18 pages); and
2. Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Mail Stop Appeal Brief - Patents, Commissioner For Patents, P.O Box 1450, Alexandria, VA 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
27123	7590	08/24/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			WU, YICUN	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 08 June 2005.
- 2a)  This action is **FINAL**.
- 2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-7 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All b)  Some \* c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_

Art Unit: 2165

1. In view of the appeal Brief filed on 6-8-2005, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or, request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

2. **DETAILED ACTION**

Claims 1-7 are presented for examination.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Patent 6,675,159) in view of Pooser et al. (U.S. Patent 5,812,134).

As to Claims 1 and 7, Lin et al. discloses a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:

at a first node, receiving an input from a user of the system (Lin et al. col. 9, lines 26-45), the input containing at least one word identifiable with at least one keyword from among multiple keywords, identifying at least one node, other than the first node (Lin et al. col. 10, lines 26-40).

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Lin et al. does not teach not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.

Pooser et al. teaches not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node (i.e. the navigational system allows the user to skip any part of the thread, return to a previous node (or element), or jump to a related node on another thread. Pooser et al. col. 9, lines 26-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. wherein not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. by the teaching of Pooser et al. because providing the not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node allows allow the user to efficiently navigate through the information base as taught by Pooser et al. (col. 6, lines 37-43).

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As to Claim 2, Lin et al. as modified teaches a method wherein the searching comprising:

providing a verbal description associated with the at least one node to the user (providing a verbal description is well known in the art).

As to Claim 3, Lin et al. as modified teaches a method wherein the searching comprising:

searching a thesaurus correlating keywords with synonyms (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 4, Lin et al. as modified teaches a method wherein the searching comprising:

identifying the at least one word as synonymous with the at least one keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 5, Lin et al. as modified teaches a method wherein the searching comprising:

determining that the at least one word is neither a keyword nor a synonym of any keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15); and

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learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 6, Lin et al. as modified teaches a method wherein the searching comprising:

adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).




Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 571-272-4087. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Yicun Wu  
Patent Examiner  
Technology Center 2100



JEFFREY GAFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

August 18, 2005

<b>Notice of References Cited</b>	Application/Control No. 10/299,359	Applicant(s)/Patent Under Reexamination PARIKH ET AL.	
	Examiner Yicun Wu	Art Unit 2165	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-5,812,134	09-1998	Pooser et al.	707/102
B	US-			
C	US-			
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

**FOREIGN PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

**NON-PATENT DOCUMENTS**

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
U	
V	
W	
X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**Search Notes**



Application/Control No.

10/299,359

Examiner

Yicun Wu

Applicant(s)/Patent under Reexamination

PARIKH ET AL.

Art Unit

2165

**SEARCHED**

Class	Subclass	Date	Examiner
707	1,2,3,4 5,6,7,8 9,10, 100	2/18/2004	YW
	101 102		
	103 104.1		
updated	search	11/25/2004	
updated	search	8/16/2005	

**SEARCH NOTES (INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
inventor search (double patenting) uspto uspgpub usocr epo jpo ibmtech derwent	2/18/2004	YW
acm ieee npl internet Search strategy attached		
consulted Dov Popovici	2/18/2004	
updated search	11/25/2004	
updated search	8/16/2005	

**INTERFERENCE SEARCHED**

Class	Subclass	Date	Examiner

**Index of Claims**



Application/Control No.

10/299,359

Examiner

Yicun Wu

Applicant(s)/Patent under Reexamination

PARIKH ET AL.

Art Unit

2165

√	Rejected
≡	Allowed

-	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

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Docket No. 4754-4000  
Application No. 10/299,359

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/299,359  
Applicant(s) : Prashant Parikh *et al.*  
Filed : November 19, 2002  
For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM  
Group Art Unit : 2175  
Examiner : Wu, Yicun  
Docket No. : 4754-4000  
Customer No. : 27123

**APPEAL BRIEF PURSUANT TO 37 C.F.R. § 41.37**

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 C.F.R. § 41.37, Appellant submits this brief in support of its appeal. The appeal is from the decision of the Examiner in a Final Office Action mailed December 3, 2004, which finally rejected pending claims 1 – 7 in the above-identified patent application. Appellant submit herewith an Appeal Brief Transmittal (in duplicate).

Based on the arguments presented herein, Appellant requests that the Board of Patent Appeals & Interferences order the final rejection of the pending claims be withdrawn, that Appellant’s claimed invention be confirmed as patentable, and the pending claims be allowed.

For the convenience of the Board, the following “Table of Contents” identifies where each section required by 37 C.F.R. § 41.37(c)(1)(i)- (c)(1)(x) begins. The Table of Contents is followed by a Table of Authorities identifying the legal support relied upon in the instant appeal.

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**PATENT**

**Docket No. 4754-4000**  
**Application No. 10/299,359**

**I. REAL PARTY IN INTEREST**

The real party in interest of the patent application on appeal is its assignee, SEMIOSIS, INC., a New York corporation. All right, title and interest to the above-identified patent application was assigned by the inventors, Prashant Parikh and Stanley Peters, to SEMIOSIS, L.L.C. in an assignment document executed on November 18, 2002 and November 13, 2002, respectively, which assignment was recorded in the Patent and Trademark Office on May 27, 2003 at Reel 014100, Frame 0747. All right, title and interest to the above-identified patent application was subsequently assigned by SEMIOSIS, L.L.C. to SEMIOSIS, INC. in an assignment document executed on December 1, 2004, which assignment was submitted for recordation in the Patent and Trademark Office on December 10, 2004.

**II. RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to Appellant, Appellant's legal representative, or the inventors that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. STATUS OF CLAIMS**

Claims 1 – 7 are pending in this patent application, and are the subject of this appeal. Claims 1 – 7 stand finally rejected as unpatentable under 35 U.S.C. § 103(a).

**IV. STATUS OF AMENDMENTS**

An Advisory Action Before the Filing of an Appeal Brief ("Advisory Action") mailed on March 7, 2005, indicated that the Response to Final Office Action filed on January 27, 2005, was entered for purposes of appeal. No other amendments were filed subsequent to the Advisory Action.



**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

**Background**

The named inventors have devised certain methods for navigation in hierarchically arranged systems. See application, e.g., Fig. 1 and p. 7, ¶¶ 1 – 3. Examples of such systems include, but are not limited to, interactive voice response systems, interactive television program listing systems, geographic information systems, and automated voice response systems. See application, e.g., Figs. 3 – 6, and related text. Such systems are typically arranged so that a user navigates through the hierarchy through an iterative process of information presentation or query to the user and response by the user. Through this iterative presentation-response scheme the user will traverse through the system and, ideally, end up with a desirable result. See application, e.g., p. 2, ¶ 2. The most common example of such a system from the perspective of an average user is a telephone menu system whereby a caller is prompted, for example, to proceed in English press or say “1”, to proceed in Spanish press “2” or say “dos”, etc. If the user presses “1” they might receive a series of additional prompts, for example, for sales press or say “1”, for returns press or say “2”, for customer service press or say “3”, etc. with each successive input causing the user to traverse to a new part (i.e. a new “node” (in this case the next menu)) of the hierarchy. Notably, the hierarchical configuration is rigidly fixed (i.e. each successive traversal is limited to either those options presented or abandoning the process and restarting) such that traversal can only occur between two connected vertexes or nodes (in the above example, via one of the available menu options).

A simplified example of such a hierarchically arranged system is shown in Figure 1, where each box represents a node in the hierarchy. See application, e.g., Fig. 1 and p. 7, ¶¶ 1 – 3. Such systems are inherently problematic in that if, for example, the user realizes that he made a mistake and thus caused a traversal down the wrong branch, prior art methods provide

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the user with very limited choices for correcting a mistake. The user must either exit the system altogether and start again from the beginning, or retrace their steps and back-navigate through each and every node until the top, or an appropriate “least common ancestor node” in the hierarchy is reached at which point the “downward” process through the system can begin again. See 1/27/05 Response to Final Office Action, e.g., p. 7.

**The Claimed Invention**

Appellant’s claimed invention solves these inadequacies of prior art systems, by allowing the user to “jump” from one node in the hierarchy to another node that is not directly connected to that node, without having to traverse through every intervening node in the path. See 1/27/05 Response to Final Office Action, e.g., paragraph spanning p. 6 – p. 7. In other words, by implementing the claimed invention, the user is not bound by the rigid hierarchical arrangement because an input or response can cause a direct jump to a different node, thereby bypassing intervening nodes that would otherwise need to be traversed according to approaches of the prior art (“jumping” in this context being defined both explicitly, and by implication, in the specification to mean a direct traversal from one node or vertex to another node or vertex that is not directly connected to it (i.e., without traversal through any intervening nodes or vertices or to a node or vertex whose only least common ancestor with that node or vertex is the root node or vertex)). See application, e.g., FIG. 2, paragraph spanning pp. 8-9; p.3, 2nd to last ¶; p. 5, last ¶; and pp. 9-11, “Example 1.”

For example, in the simplified arrangement of Figure 1 which, for purposes of explanation, could represent an interactive voice response travel reservation system where the boxes labeled “2”, “4” and “5” might represent aspects involved with booking a domestic reservation and the boxes under the box labeled “3” might represent aspects involved with booking an international flight. See 1/27/05 Response to Final Office Action, e.g., p. 7. A

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customer wishing to book a flight to “San Jose” in Costa Rica could conceivably, unintentionally, navigate down through the nodes associated with a domestic booking by saying “San Jose” at an early point, only to realize, when hotels in California are mentioned, a mistake has been made. Id. At that point, with the conventional systems of the prior art, the person would have to either start all over or back-traverse through the options and try to navigate down through the international options by first mentioning “Costa Rica” or “International” at the starting point. Id. In contrast, with the methods of independent claim 1 or claim 7, the person might simply say, “not California, I want San Jose, Costa Rica” at which point, the system would directly “jump” to the node under the box labeled “3” associated with booking travel in Costa Rica without forcing a back-navigation through all the intervening nodes or a restart. Id.

Independent claim 1 is specifically directed to a method of navigating in a system having multiple navigable nodes interconnected in a hierarchical arrangement. The method includes receiving an input containing at least one identifiable keyword from a user at a first node, identifying at least one other node that is associated with the at least one identifiable keyword but that is not directly connected to the first node, and jumping to the other node. Independent claim 7 is directed to a method of navigating an arrangement of nodes representable as a hierarchical graph containing vertices, and edges connecting at least two of the vertices. The method includes the steps of receiving an input containing at least one keyword from a user at a first node as a response to a verbal description, selecting a vertex in the hierarchical graph that is associated with the keyword but that is not connected by an edge to the first vertex, and jumping to the other vertex.

**VI. GROUNDS OF REJECTIONS TO BE REVIEWED ON APPEAL**

Whether claims 1 – 7 are obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 6,676,159 to Lin et al. (“Lin”) in view of U.S. Patent No. 6,408,290 to Thiesson et al. (“Thiesson”).

Whether the Patent Office improperly rejected claims 2 – 6 based on a construction of the claim term “jumping” which is inconsistent with its definition in the specification.

**VII. APPELLANT’S ARGUMENT**

Claims 1 – 7 stand rejected, under 35 U.S.C. § 103(a), as being obvious over Lin et al. U.S. Pat. No. 6,676,159 (“Lin”) in view of Thiesson et al. U.S. Patent No. 6,408,290 (“Thiesson”).

Appellant respectfully submits that, as demonstrated herein, the claim rejections of the Final Office Action are improper, and should be withdrawn because: (A) the rejections are based on an improper construction of the claims, and (B) the Final Office Action obviousness rejections are based on legally and factually flawed analyses, because (1) the alleged obviousness rejections are based on a misinterpretation of Thiesson, and (2) the Final Office Action fails to make a *prima facie* obviousness case because the combination of Thiesson with Lin does not render the claimed invention obvious. Individually, each such action is contrary to law. Collectively, those actions demonstrate that an improper standard of patentability is being applied to the claimed invention.

For appeals, 37 CFR § 41.37(c)(1)(vii) states that “Each ground of rejection must be treated under a separate heading.” However, in the interest of brevity and avoiding redundancy the arguments are identically applicable to all rejections. Hence, they are argued together and appropriate leeway in applying with the separateness requirement is requested.

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Application No. 10/299,359**

**A. THE PATENT OFFICE'S REJECTIONS ARE BASED  
IN PART ON AN IMPROPER INTERPRETATION OF  
THE TERM "JUMPING" AS USED IN THE CLAIMS**

The Supreme Court has clearly articulated that a claim term must be defined to comport with the whole instrument.

[A] necessarily sophisticated analysis of the whole [patent] document [is] required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole.

Markman v. Westview Instruments, Inc., 517 U.S. 370, 389, 38 USPQ2d 1461, 1470 (1996).

It is also well-established that an inventor may be his own lexicographer. See, e.g., ZMI Corp. v. Cardiac Resuscitator Corp., 844 F.2d 1576, 1580, 6 USPQ2d 1557, 1560 (Fed. Cir. 1988); Markman v. Westview Instruments, Inc., 52 F.3d 967, 979, 34 USPQ2d 1321, 1330 (Fed. Cir. 1995); Hormone Research Foundation, Inc. v. Genentech, Inc., 904 F.2d 1558, 1563, 15 USPQ2d 1039, 1043 (Fed. Cir. 1990). "The terms of a claim will be given their ordinary meaning, unless it appears that the inventor used them differently." ZMI Corp., 844 F.2d at 1580. For proper claim construction, one must look to the specification to determine if the inventor used the claim terms differently from their ordinary accustomed meaning. ZMI Corp., 844 F.2d at 1580; see also, Hormone Research Foundation, Inc., 904 F.2d at 1563. In particular, "the specification aids in ascertaining the scope and meaning of the language employed in the claims inasmuch as words must be used in the same way in both the claims and the specification." ZMI Corp., 844 F.2d at 1580.

The Patent Office has adopted procedures to apply these standards in examining an application. In particular, Patent Office practice provides that "[w]here an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." (emphasis added) See M.P.E.P. § 2111.01(III) (citing Toro Co. v. White

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Consolidated Indus. Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999) (meaning of words used in a claim “is not construed in a lexicographic vacuum, but in the context of the specification and drawings.”). See also In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) (“Claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification in giving them their ‘broadest reasonable interpretation’.” 710 F.2d at 802, 218 USPQ at 292 (quoting In re Okuzawa, 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976)) (emphasis in original). Any special meaning assigned to a term “must be sufficiently clear in the specification that any departure from common usage would be so understood by a person of experience in the field of the invention.” See M.P.E.P. § 2111.01(III) (citing Multiform Desiccants Inc. v. Medzam Ltd., 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998)).

The Final Office Action has rejected the pending claims based on an improper construction of the claim term “jumping” by disregarding the definition applied in the Specification, contrary to the claim construction rules set forth by the Federal Circuit, its predecessor court (the C.C.P.A.), and the Patent Office. The Final Office Action contended the claim term “jumping” was “not clearly defined in Applicant’s [sic] specification,” and rejected the claims using “the broadest possible interpretation” of the claim term. See Final Office Action at p. 2. In response, Appellants identified many instances in the specification where the claim term “jumping” is defined, both explicitly and by implication in such a manner as would be understood by a person of ordinary understanding in the field. Yet, the Final Office Action completely disregarded Appellant’s definition of “jumping” given in Appellant’s specification, and maintained the claim rejections based on the improper claim construction. See Advisory Action at p. 2. Thus, the Final Office Action is applying an improper definition of the claim

term “jumping” that is inconsistent with that set forth in the specification itself. Such alternative definition must be ordered discarded as improper as a matter of law and Patent Office practice.

Accordingly, the rejection implying that “jumping” is not clearly defined should be reversed as should the claim rejections involving a construction of “jumping” that is at odds with Appellant’s definition.

**B. THE PATENT OFFICE’S OBVIOUSNESS REJECTIONS ARE BASED UPON FACTUALLY AND LEGALLY FLAWED ANALYSES**

Notwithstanding the improper construction of “jumping” which mandates reversal of the art rejections, since they are premised upon the Patent Office construction, rather than the meaning specified by Appellant, the Final Office Action misconstrues the disclosures of the cited art, further compounding the error.

The Federal Circuit has clearly and repeatedly articulated the guidelines to be followed in rejecting a claim for obviousness.

The factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.

In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citation omitted).

The standard for determining obviousness under 35 U.S.C. § 103(a), as set forth by the Supreme Court in Graham v. John Deere Co., 383 U. S. 1, 17, 148 USPQ. 459, 467 (1966), requires a factual determination to ascertain: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; and (3) the differences between the claimed subject matter and the prior art. Based on these factual inquiries, a preliminary determination is made as to whether the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the alleged invention was made.

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Here, the Final Office Action's obviousness rejections are based on a flawed factual analysis of the teachings and suggestions of Thiesson. As a result, the Final Office Action has failed to establish a *prima facie* obviousness case because Thiesson does not disclose what is attributed to it in the Final Office Action.

Moreover, because Thiessen factually lacks the very aspects the Final Office Action alleges is lacking from Lin, even if the two are properly combined, no combination of Lin with Thiesson would not teach or suggest all the limitations of the pending claims.

**2. THE PATENT OFFICE REJECTIONS ARE BASED ON A MISCHARACTERIZATION OF THIESSON**

The M.P.E.P. states:

As an initial matter, Office personnel should determine the scope and content of the relevant prior art. Each reference must qualify as prior art under 35 U.S.C. § 102 (e.g., Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1568, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987) ("Before answering Graham's 'content' inquiry, it must be known whether a patent or publication is in the prior art under 35 U.S.C. § 102.")) and should be in the field of applicant's endeavor, or be reasonably pertinent to the particular problem with which the inventor was concerned. In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Accord, e.g., In re Clay, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

See M.P.E.P. § 2144.08.

The Final Office Action erroneously contends that Thiesson teaches "not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node (Thiesson et al. Fig. 10, from H<sub>d</sub>1 to O<sub>c</sub>1)." See Final Office Action at p. 4. However, the Final Office Action is wrong on several accounts. First, Thiesson does not disclose the teaching attributed to it by the Final Office Action because Thiesson does not disclose hierarchically interconnected "navigable" nodes at all, let alone ones "navigable" in the manner of Appellants' claimed invention. Second, Thiesson does not teach "jumping" from a



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first node to another node that is “not directly connected to the first node,” as the Final Office Action contends.

Quite the contrary, Thiesson discloses various Bayesian networks. Bayesian networks are simply ways to represent cause and effect interrelationships – typically among various system variables. Specifically, in mathematical parlance, a Bayesian network is a technique for representing the probabilistic relationships between variables in directed acyclic graphs. For example, Fig. 2 of Thiesson shows a simplified network for various aspects of an automobile and relates to “troubleshooting automobile problems” by illustrating how a change to one element of an automotive system will affect other elements of the system. The interrelationship is partially shown by representing by interconnection lines between directly affected aspects. For example, as shown, the variable “Battery Power 212” has a direct effect upon the variables represented by “Radio 214”, “Lights 216”, “Engine Turns Over 218”, and “Gas Gauge 222” and an indirect effect upon the “Engine Start 234” variable via the “Engine Turns Over 218” variable. However, in Bayesian networks in general and this example of Thiessen in particular, no change can be made to the “Battery 208” variable that will affect the “Engine Start 234” variable without also effecting a change to both the “Battery Power 212” and “Engine Turns Over 218” variables intervening in between. Considered another way, Fig. 2 is like a spreadsheet with each oval representing a cell in the spreadsheet, and each cell containing a value determined by a formula in including the value in one or more other cells. If one changes the value in a given hypothetical spreadsheet cell, for argument sake the cell at the intersection of row 9 and column 3, all other cells having a formula that directly or indirectly includes the value at row 9, column 3 will automatically modify to reflect that change.

In sum, Thiesson discloses methods of using network relationships to compute the values of the variables in a Bayesian network based on certain input values, and Thiesson's systems specifically relate to mixing of such networks and neither of which have anything to do with the instant disclosure, let alone the invention as claimed.

First and most simply, Thiesson does not disclose navigable hierarchically interconnected nodes. While it is true that Thiesson discloses "nodes" in a general computer science sense, the similarity stops there. There is simply no way to navigate among Thiesson's nodes since Thiessen relates to changes in variables. Moreover, implementing a change to a value in one of Thiesson's nodes will propagate through and affect all other connected nodes (i.e. all nodes that are, directly or indirectly, a function of that variable). There is also no user choice involved in the matter – if a value of a variable is changed, this will necessarily induce a change in every other node that is directly or indirectly a function of the variable.

Indeed, on this point Thiessen is conceptually analogous to a set of independent and dependent claims in a patent application – if an amendment is made to a particular claim, that amendment will necessarily apply to that claim and every other claim that depends from it whether, directly or indirectly. Thus, in a case having 4 claims, each dependent upon the immediately preceding claim, an amendment to claim 1 would also affect the scope of claims 2 through 4. An amendment to claim 3 however, would only affect claims 3 and 4. Hence, the dependency implies a relationship among the claims, but there is no navigation involved.

In contrast, a user navigating the hierarchy of "navigable" nodes in a system implementing Appellant's claimed invention is actually sent down a path from a first node to another node depending on, e.g., their response to queries posed at the first node, and, more importantly, irrespective of whether the two nodes are directly connected. Extending that

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**Docket No. 4754-4000  
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concept as best as possible to the above patent application example, and in contrast to Thiessen, this would be analogous to having a 4 claim case having dependencies as above wherein an amendment to claim 1 would only affect claim 4 (i.e. despite claim 4's dependency from claim 3, and claim 3's dependency from claim 2, and claim 2's dependency from claim 1).

Therefore, Thiesson does not disclose, teach or suggest "navigable" nodes nor does it disclose, teach or suggest "jumping" from a first node to another node that is "not directly connected to the first node," as the Final Office Action contends.

When Appellant challenged this position as raised by the Patent Office in the original Office Action, the Final Office Action supported the contention, by specifically pointing to Fig. 10 of Thiesson, stating that going from H<sub>d</sub>1 to O<sub>c</sub>1 involves "jumping" from one node to another unconnected "node." See Final Office Action at p. 4. However, a cursory examination of Fig. 10 shows that H<sub>d</sub>1 and O<sub>c</sub>1 are in fact directly connected (notwithstanding the fact that Fig. 10 is still illustrating a cause and effect relationship, and not a navigable hierarchical arrangement of nodes). There is unequivocally no jumping from one node to an unconnected node in Thiesson. For example, there is no ability to directly jump from O<sub>c</sub>2 to O<sub>d</sub>2, as would be required if Thiesson's system were in any way applicable to Appellants' claimed invention.

In sum, the Final Office Action failed to properly determine the scope and content of Thiesson, or it would have recognized that Thiesson lacked the very teaching the Final Office Action attributed to it. Accordingly, the obviousness rejections based on Thiesson are improper as a matter of law and Patent Office practice, and thus should be reversed and the claims confirmed as patentable.

3. **THE PATENT OFFICE HAS FAILED TO ESTABLISH PRIMA FACIE OBVIOUSNESS**

An obviousness analysis places the initial burden to make out a *prima facie* case of obviousness on the Patent Office. Specifically, the M.P.E.P. states:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

See M.P.E.P. § 2142 (emphasis added).

To establish a *prima facie* obviousness case, the prior art references, when combined, must teach or suggest all the claim limitations. See M.P.E.P. § 2142 (emphasis added). However, as discussed above, Thiesson does not teach or suggest the limitations attributed to it by the Final Office Action. As a result, no combination of Lin with Thiesson would arrive at or suggest any of the pending claims. Therefore, Final Office Action has failed to establish a *prima facie* obviousness case.

As the Final Office Action recognized, there is no navigation in Lin from one node to another except by a traversal through every intervening node in a path leading from one to the other – the very antithesis of the instant invention. Indeed, the Final Office Action specifically combines Thiesson with Lin, because Thiesson allegedly teaches the claim limitations admittedly lacking from Lin, namely: “not directly connected to the first node but is associated with the at least one keyword, and jumping to at least one node.” See Final Office Action at p. 4. Since Thiesson neither teaches nor suggests the limitations the Final Office

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**Docket No. 4754-4000**  
**Application No. 10/299,359**

Action attributed to it, then Thiesson does not cure the deficiencies of Lin. Thus, contrary to the Final Office Action's contentions, the Final Office Action has failed to establish a *prima facie* obviousness case, because no combination of Lin with Thiesson would arrive at or suggest Appellant's claimed invention.

Moreover, the 6/04/04 Office Action contends that it would have been obvious to modify Lin by the teachings of Thiesson because "providing the not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node [*sic*] allows the improvement of collaborative filtering systems as taught by Thiesson et al. (col. 7, lines 10–16)." See 6/04/04 Office Action at p. 5. This contention is wrong on two accounts. First, the referenced passage of Thiesson stating that collaborative filtering can be improved *per se* is a far cry from a motivation for or teaching of jumping among non-connected nodes at all, let alone one which could be said to provide sufficient teaching that Lin and Thiesson could be combined in a manner that would achieve the claimed invention, any more than a teaching that gas mileage in cars can be improved suggests any specific modification that would achieve that result. Collaborative filtering has nothing substantive to do with how one navigates from node-to-node in a system pertinent to the instant subject matter – not a navigable system of the prior art, nor a navigable system in which Appellants' invention can be implemented – and it has even less to do with Appellants' invention as claimed.

In sum, it is respectfully submitted that Lin in view of Thiesson can not render the claims obvious. Therefore, the Final Office Action has failed to establish a *prima facie* obviousness case. Accordingly, the obviousness rejections based on Lin in view of Thiesson should be reversed and all the claims confirmed as patentable.

**CONCLUSION**

Appellant respectfully submits that the above demonstrates that the rejections of the Final Office Action are improper because: (A) the rejections are based on an improper construction of the claims, and (B) the Patent Office's rejections for obviousness are based upon legally and factually flawed analyses, because (1) the alleged obviousness rejections are based on a misinterpretation of Thiesson, and (2) the Final Office Action fails to make a *prima facie* obviousness case, because the combination of Thiesson with Lin does not render the claimed invention obvious.

Appellant respectfully request that the Board order that the final rejection of the pending claims be withdrawn, Appellant's claimed invention be confirmed as patentable, and that the pending claims be allowed.

Respectfully submitted,

**MORGAN & FINNEGAN, L.L.P.**

Dated: May 31, 2005

By: 

Richard Straussman  
Registration No. 39,847

***Attorney for Appellant***

**Correspondence Address:**

MORGAN & FINNEGAN, L.L.P.  
Three World Financial Center  
New York, New York 10281-2101  
(212) 415-8700  
(212) 415-8701 (Fax)

**VIII. CLAIMS APPENDIX**

1. (original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:  
at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,  
identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and  
jumping to the at least one node.
2. (original) The method of claim 1 further comprising:  
providing a verbal description associated with the at least one node to the user.
3. (original) The method of claim 1 further comprising:  
searching a thesaurus correlating keywords with synonyms.
4. (original) The method of claim 3 wherein the searching further comprises:  
identifying the at least one word as synonymous with the at least one keyword.
5. (original) The method of claim 1 further comprising:  
determining that the at least one word is neither a keyword nor a synonym of any  
keyword; and  
learning a meaning for the word so that the word will be treated as a learned synonym for  
at least one particular keyword of the multiple keywords.

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6. (original) The method of claim 5 further comprising:  
adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

Claims 8 through 26 (Cancelled).



**PATENT**

**Docket No. 4754-4000  
Application No. 10/299,359**

**IX. EVIDENCE APPENDIX**

<u>TAB</u>	<u>ITEM</u>	<u>RECORDED/FILED</u>
A.	Copy of Assignment Recordation from Inventors to SEMIOSIS, L.L.C.	May 27, 2003
B.	Copy of Request for Recordation of Assignment from SEMIOSIS, L.L.C. to SEMIOSIS, INC.	December 10, 2004



UNITED STATES  
PATENT AND  
TRADEMARK OFFICE



NOVEMBER 04, 2003

Chief Financial Officer and Chief Administrative Officer  
Washington, DC 20231  
www.uspto.gov

PTAS

MORGAN & FINNEGAN, L.L.P.  
RICHARD STRAUSSMAN  
345 PARK AVENUE  
NEW YORK, NY 10154



\*102459850A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/27/2003

REEL/FRAME: 014100/0747  
NUMBER OF PAGES: 7

BRIEF: CORRECTIVE TO CORRECT THE FIRST ASSIGNOR'S NAME PREVIOUSLY RECORDED AT REEL 013511 FRAME 0923. (ASSIGNMENT OF ASSIGNOR'S INTEREST)

ASSIGNOR:  
PARIKH, PRASHANT

DOC DATE: 11/18/2002

ASSIGNOR:  
PETERS, STANLEY

DOC DATE: 11/13/2002

ASSIGNEE:  
SEMIOSIS L.L.C.  
254 EAST 68TH STREET  
NEW YORK, NEW YORK 10021

SERIAL NUMBER: 10299359  
PATENT NUMBER:

FILING DATE: 11/19/2002  
ISSUE DATE:

REVIEWED BY AUDIT DEPT.  
DATE 11/12 - BY [Signature]

RECEIVED  
AUDIT DEPT.  
2003 NOV 10 A 10:41  
MORGAN & FINNEGAN LLP



Docket No.: 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Prashant Parikh and Stanley Peters  
**Serial No.:** 10/299,359                      **Group Art Unit:** 2165  
**Filed:** November 19, 2002                      **Examiner:** Yicun Wu  
**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**EXPRESS MAIL CERTIFICATE**

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P.O Box 1450  
Alexandria, VA 22313-1450

**Express Mail Label No.: EV455192345US**

**Date of Deposit: December 10, 2004**

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1. Recordation Form Cover Sheet (2 pages);
2. Assignment (2 pages);
3. Check in the amount of \$40.00; and
4. Return receipt postcard.

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Albert Isles

(Typed or printed name of person mailing paper(s) and/or fee)

(Signature of person mailing paper(s) and/or fee)

**Correspondence Address:**

MORGAN & FINNEGAN, L.L.P.  
Three World Financial Center  
New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile



PATENT

Docket No.: 4754-4000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Prashant Parikh and Stanley Peters  
 Serial No.: 10/299,359 Group Art Unit: 2165  
 Filed: November 19, 2002 Examiner: Yicun Wu  
 For: **NAVIGATION IN A HIERARCHICAL  
 STRUCTURED TRANSACTION PROCESSING SYSTEM**

RECORDATION FORM COVER SHEET PURSUANT TO 37 C.F.R. § 3.31

MAIL STOP ASSIGNMENT RECORDATION SERVICES  
 U.S. Patent and Trademark Office  
 Office of Public Records  
 Crystal Gateway 4, Room 335  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

Please record the attached original documents or copy thereof.

1. Name of conveying party/parties:

Name SEMIOSIS L.L.C.

Internal Address: \_\_\_\_\_

Street Address: 254 East 68th Street

City New York New York Zip 10021 Country USA

2. Name and address of receiving party/parties:

Name SEMIOSIS, INC.

Internal Address: \_\_\_\_\_

Street Address: 254 East 68th Street

City New York New York Zip 10021 Country USA

[ ] Additional names and addresses attached.

**PATENT**

Docket No.: 4754-4000

3. Name of conveyance:  Assignment       Merger       Security Agreement  
 Change of Name       Other \_\_\_\_\_

Execution Date: December 1, 2004

4. Application Number(s) or Patent Number(s):  
 This document is being filed together with a new application which was executed on \_\_\_\_\_.  
 Patent Application No.(s) 10/299,359  
 Patent No.(s) \_\_\_\_\_

5. Address all future communications to:

MORGAN & FINNEGAN, L.L.P.  
 Three World Financial Center  
 New York, New York 10281-2101

6. Total number of applications and patents involved: 1.
7. Total fee (37 CFR §3.41): \$40.00 property x 1 property(ies) = \$40.00.  
 A check in the amount of \$ 40.00 to cover the recordation fee is enclosed.  
 Charge fee to Deposit Account No. 13-4500. Order No. \_\_\_\_.  
 The Commissioner is hereby authorized to charge any additional fees which may be required for this recordation, or credit any overpayment to Deposit Account No. 13-4500. Order No. 4754-4000.
8. 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.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.



By: \_\_\_\_\_  
 Richard Straussman  
 Registration No. 39,847

Dated: December 10, 2004

CORRESPONDENCE ADDRESS:

Total number of pages including the recordation cover sheet 4

MORGAN & FINNEGAN, L.L.P.  
 Three World Financial Center  
 New York, New York 10281-2101  
 (212) 415-8700  
 (212) 415-8701 Facsimile

## ASSIGNMENT OF APPLICATIONS FOR PATENT

**WHEREAS** SEMIOSIS L.L.C. (hereinafter referred to as ASSIGNOR), having an office at 254 East 68<sup>th</sup> Street, New York, New York 10021, U.S.A. is the owner of the entire interest, by right of assignment, of all discoveries and inventions described in all applications for Letters Patents (or similar legal protection to be obtained therefore) and identified in TABLE 1 below, in the United States, its territorial possessions, and all foreign countries, and to any and all legal protection to be obtained therefor:

Serial No.	Filing Date	Title
10/299,359	Nov. 19, 2002	Navigation In A Hierarchical Structured Transaction Processing System
10/799,429	March 11, 2004	Navigation In A Hierarchical Structured Transaction Processing System
10/799,506	March 11, 2004	Navigation In A Hierarchical Structured Transaction Processing System
PCT/US03/34134	Oct. 27, 2003	Navigation In A Hierarchical Structured Transaction Processing System

TABLE 1

and **WHEREAS** SEMIOSIS, INC., (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of the State of New York having an office at 254 East 68<sup>th</sup> Street, New York, New York 10021, U.S.A. is desirous of acquiring all of ASSIGNOR'S interest and rights to and under said discoveries and inventions and in, to and under applications for Letters Patents, Letters Patents, or similar legal protection to be obtained therefor in the United States and in any and all foreign countries.

**NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, WITH EFFECT FROM THE DATE OF EXECUTION HEREOF:**

Be it known that, for good and valuable consideration provided by ASSIGNEE to ASSIGNOR, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its successors, legal representatives and assigns, the full and exclusive right, title and interest to all said discoveries or inventions in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.


SAID ASSIGNOR hereby authorizes and requests the Commissioner for Patents of the United States of America and any Official of any country or countries foreign to the United States of America whose duty it is to issue Letters Patent on applications as aforesaid, to issue all such Letters Patent for said discovery or invention to the ASSIGNEE, as assignee of the entire right, title and interest in, to and under the same in accordance with the terms of this instrument.


SAID, ASSIGNOR, hereby covenants that it has full right to convey the entire right, title and interest herein sold, assigned, transferred and set over;

AND SAID ASSIGNOR hereby further covenants and agrees that the ASSIGNEE, its successors, legal representatives, or assigns, may apply for foreign Letters Patent on said discovery or invention and claim the benefits of the International Convention, and that it will, at any time, when called upon to do so by the ASSIGNEE, its successors, legal representatives, or assigns, communicate to the ASSIGNEE, its successors, legal representatives, or assigns, as the case may be, provide any facts known respecting said discovery or invention, and execute and deliver any and all lawful papers that may be necessary or desirable to perfect the title to the said discovery or invention, the said applications and the said Letters Patent in the ASSIGNEE, its successors, legal representatives and assigns, and that if reissues of the said Letters Patent or disclaimers relating thereto, or divisions, continuations, or refilings of the said applications, or any thereof, shall hereafter be desired by the ASSIGNEE, its successors, legal representatives, or assigns, it will, when called up to do so by the ASSIGNEE, its successors, legal representatives, or assigns, sign all lawful papers, make all rightful oaths, execute and deliver all such disclaimers and all divisional, continuation and reissue applications so desired, and do all lawful acts requisite for the application for such reissues and the procuring thereof and for the filing of such disclaimers and such applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention or discover in all countries, and without further compensation but at the expense of the ASSIGNEE, its successors, legal representatives and assigns.

For: SEMIOSIS L.L.C.

For: SEMIOSIS, INC.

By:   
 Its: Prashant Parikh  
 President

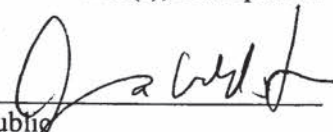
By:   
 Its: Prashant Parikh  
 President

Dated: 12/1/04

Dated: 12/1/04

STATE OF NEW YORK        )  
   ) ss.  
 COUNTY OF NEW YORK    )

On the 1<sup>st</sup> day of December, in the year 2004, before me, the undersigned, a Notary Public in and for said State, personally appeared Prashant Parikh, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose (name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

  
 Notary Public

JAMES A. GOLDSTEIN  
 Notary Public, State of New York  
 No. 31-1493595  
 Qualified in New York County  
 Commission Expires April 30, 2007

2007



06-2-05

ZPW  
APB

Docket No. 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Prashant Parikh *et al.* Confirmation No. 5023  
 Serial No.: 10/299,359 Group Art Unit: 2175  
 Filed: November 19, 2002 Examiner: Wu, Yicun  
 For: NAVIGATION IN A HIERARCHICAL STRUCTURED  
 TRANSACTION PROCESSING SYSTEM

**EXPRESS MAIL CERTIFICATE**

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 Commissioner for Patents  
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 Alexandria, VA 22313-1450


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Date of Deposit: **May 31, 2005**

I hereby certify that the following attached paper(s) and/or fee

1. Appeal Brief Transmittal (1 page in duplicate);
2. Appeal Brief Pursuant To 37 C.F.R. §41.37 (27 pages) including Exhibits A and B;
3. Petition And Fee For Extension Of Time (2 pages);
4. Check in the amount of \$250.00; and
5. Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Mail Stop APPEAL BRIEF-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Albert Isles  
 (Typed or printed name of person mailing papers(s) and/or fee)  
  
 (Signature of person mailing paper(s) and/or fee)

Address:

MORGAN & FINNEGAN, L.L.P  
 Three World Financial Center  
 New York, New York 10281-2101  
 (212) 415-8700 Phone  
 (212) 415-8701 Facsimile





Docket No. 4754-4000  
Serial No. 10/299,359

**Docket No. 4754-4000**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Prashant Parikh *et al.* Confirmation No. 5023  
Serial No.: 10/299,359 Group Art Unit: 2175  
Filed: November 19, 2002 Examiner: Wu, Yicun  
For: NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

**APPEAL BRIEF/REPLY BRIEF/SUPPLEMENTAL BRIEF TRANSMITTAL**

Mail Stop APPEAL BRIEF-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

- Transmitted herewith in triplicate is the Appeal Brief for Appellant(s) which is due on May 29, 2005. The Notice of Appeal was filed on March 29, 2005.
- Transmitted herewith in triplicate is the Reply Brief for Appellant(s) which is due on \_\_\_\_\_. The Examiner's Answer was mailed on \_\_\_\_\_.
- Transmitted herewith in triplicate is a Supplemental Brief for Appellant(s) which is due on \_\_\_\_\_ in response to the Office Action reopening prosecution on \_\_\_\_\_. Appellant(s) hereby request that the appeal of the above-identified application be reinstated.
- A Petition and Fee for Extension of Time to extend the term for filing the  Appeal Brief  Reply Brief  Supplemental Brief is enclosed.

**The item(s) checked below are appropriate:**

- Appeal Fee (Large Entity) - \$500.00
- Appeal Fee Under 37 CFR §1.9(f) (Small Entity) - \$250.00
- Fee enclosed (Check for \$250.00)
- Fee not required (Fee paid in prior appeal)
- Charge fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Docket No. 4754-4000

Serial No. 10/299,359

**The Commissioner is hereby authorized to charge any additional fees which may be required by this paper, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4754-4000. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: May 31, 2005

By:



Richard Straussman  
Registration No. 39,847

Correspondence Address:  
MORGAN & FINNEGAN, L.L.P.  
3 World Financial Center  
New York, NY 10281-2101  
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Docket No. 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Prashant Parikh and Stanley Peters  
**Group Art Unit:** 2165  
**Serial No.:** 10/299,359  
**Examiner:** Yicun Wu  
**Filed:** November 10, 2002  
**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**PETITION AND FEE FOR EXTENSION OF TIME (37 C.F.R. § 1.136(a))**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. **This is a petition for an extension of time for filing an Appeal Brief pursuant to 37 C.F.R. §41.37.**
2. The communication in connection with the matter for which this extension is requested
  - is filed herewith.**
  - has been filed on \_\_\_\_\_.
3.  **Applicant(s) is/are entitled to Small Entity Status.**
  - Statement has already been filed

4.		<u>Total Months Requested</u>	<u>Fee for Other than Small Entity</u>	<u>Fee for Small Entity</u>
a.	<input checked="" type="checkbox"/>	<b>one month</b>	\$120.00	<b>\$60.00</b>
b.	<input type="checkbox"/>	two months	\$450.00	\$225.00
c.	<input type="checkbox"/>	three months	\$1,020.00	\$510.00
d.	<input type="checkbox"/>	four months	\$1,590.00	\$795.00
e.	<input type="checkbox"/>	five months	\$2,160.00	\$1,080.00
f.	<input type="checkbox"/>	An extension for _____ months has already been secured for filing the above-identified communication and the fee paid therefor of \$_____ is deducted from the total fee due for the total months of extension now requested. The fee for this extension (\$ _____), minus the fee previously paid (\$ _____) equals \$_____ (total fee due).		

06/03/2005 MAHMED1 00000044 134500 10299359  
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Express Mail Certificate Label No. EV623606109US

Docket No. 4754-4000


Serial No. 10/299,359

5.  A check in the amount of \$ \_\_\_\_\_ to cover the extension fee is attached.
6.  **Charge fee to Deposit Account No. 13-4500, Order No. 4754-4000.  
A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**
7.  **The Commissioner is hereby authorized to charge any additional fees which may be required by this paper, or credit any overpayment to Deposit Account No. 13-4500. Order No. 4754-4000. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: May 31, 2005

By: \_\_\_\_\_

  
Richard Straussman  
Registration No. 39,847

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.  
3 World Financial Center  
New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Prashant Parikh and Stanley Peters  
**Group Art Unit:** 2165  
**Serial No.:** 10/299,359  
**Examiner:** Yicun Wu  
**Filed:** November 10, 2002  
**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**NOTICE OF APPEAL TO THE BOARD  
OF PATENT APPEALS AND INTERFERENCES**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicant(s) hereby appeal(s) to the Board of Patent Appeals and Interferences from the decision(s) dated March 7, 2005 of the Primary Examiner. The items(s) checked below are appropriate:

- Fee not required (Fee paid in prior appeal)
- Appeal Fee Large Entity (\$500.00)
- Small Entity Appeal Fee (\$250.00)**
- A check in the amount of \$250.00 to cover the appeal fee is enclosed.**
- Charge fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- The Commissioner is hereby authorized to charge any additional fees which may be required by this paper, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4754-4000. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**

04/01/2005 HAHHE1 00000039 10299359

01 FC:2401

250.00 OP

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

By: \_\_\_\_\_  
Richard Straussman  
Registration No. 39,847

Dated: March 29, 2005

Correspondence Address:  
MORGAN & FINNEGAN, L.L.P.  
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New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile



03/31/05

AF \$

**Docket No.: 4754-4000**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Prashant Parikh and Stanley Peters

**Serial No.:** 10/299,359                      **Group Art Unit:** 2165

**Filed:** November 19, 2002              **Examiner:** Yicun Wu

**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**EXPRESS MAIL CERTIFICATE**

Mail Stop AF  
 Commissioner For Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

**Express Mail Label No.: EV455194151US**

**Date of Deposit: March 29, 2005**

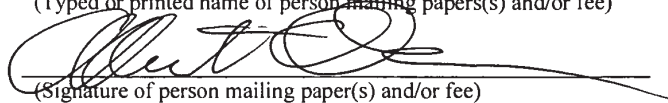
I hereby certify that the following attached paper(s) and/or fee

1. Notice Of Appeal To The Board Of Patent Appeals and Interferences (1 page);
2. Petition And Fee For Extension Of Time (2 pages);
3. Checks in the amounts of \$250.00 and \$60.00; and
4. Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Mail Stop AF, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Albert Isles

(Typed or printed name of person mailing papers(s) and/or fee)



(Signature of person mailing paper(s) and/or fee)

**Correspondence Address:**

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 Three World Financial Center  
 New York, NY 10281-2101  
 (212) 415-8700 Telephone  
 (212) 415-8701 Facsimile



Docket No. 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s):** Prashant Parikh and Stanley Peters  
**Group Art Unit:** 2165  
**Serial No.:** 10/299,359  
**Examiner:** Yicun Wu  
**Filed:** November 10, 2002  
**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**PETITION AND FEE FOR EXTENSION OF TIME (37 C.F.R. § 1.136(a))**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. **This is a petition for an extension of time for filing a Notice of Appeal in response to the Advisory Action dated March 7, 2005.**

2. The communication in connection with the matter for which this extension is requested

**is filed herewith.**

has been filed on \_\_\_\_\_.

3.  **Applicant(s) is/are entitled to Small Entity Status.**

Statement has already been filed

4.		<u>Total Months Requested</u>	<u>Fee for Other than Small Entity</u>	<u>Fee for Small Entity</u>
a.	<input checked="" type="checkbox"/>	<b>one month</b>	\$120.00	<b>\$60.00</b>
b.	<input type="checkbox"/>	two months	\$450.00	\$225.00
c.	<input type="checkbox"/>	three months	\$1,020.00	\$510.00
d.	<input type="checkbox"/>	four months	\$1,590.00	\$795.00
e.	<input type="checkbox"/>	five months	\$2,160.00	\$1,080.00

04/01/2005 MAHMED1 00000039 10299359

02 FC:2251


60.00 DP

5.  **A check in the amount of \$60.00 to cover the extension fee is attached.**
6.  Charge fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7.  **The Commissioner is hereby authorized to charge any additional fees which may be required by this paper, or credit any overpayment to Deposit Account No. 13-4500. Order No. 4754-4000. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.**

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: March 29, 2005

By: \_\_\_\_\_

  
Richard Straussman  
Registration No. 39,847

Correspondence Address:

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(212) 415-8701 Facsimile



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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
27123	7590	03/07/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			WU, YICUN	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 03/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2165	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 27 January 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2.  The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a)  They raise new issues that would require further consideration and/or search (see NOTE below);  
(b)  They raise the issue of new matter (see NOTE below);  
(c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: none.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-7.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because: the claimed limitations of the finally rejected claims are still meet by prior art of record (Lin et al. (U.S. Patent 6,675,159) in combination with Thiesson et al. (U.S. Patent 6,408,290)).  
12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s): \_\_\_\_\_.  
13.  Other: \_\_\_\_\_.

  
**CHARLES RONÈS**  
**PRIMARY EXAMINER**



DO not enter yr 2/3/05

Docket No: 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Prashant Parikh and Stanley Peters  
Serial No. : 10/299,359                      Group Art Unit: 2175  
Filed : November 19, 2002              Examiner: Wu, Yicun  
For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

Mail Stop AF  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO FINAL OFFICE ACTION**

Responsive to the Final Official Action mailed December 3, 2004, Applicants respectfully request reconsideration in view of the following remarks. This "Response to Office Action" is being filed within 2 months of the date the Final Office Action was mailed.

The currently pending claims are reflected in the listing of claims which begins on page 2 of this paper. None of the claims have been amended.

Remarks/Arguments begin on page 4 of this paper.

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Docket No.: 4754-4000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicant(s):** Prashant Parikh and Stanley Peters  
**Serial No.:** 10/299,359 **Group Art Unit:** 2165  
**Filed:** November 19, 2002 **Examiner:** Yicun Wu  
**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

EXPRESS MAIL CERTIFICATE

Mail Stop AF  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Express Mail Label No.: EV455192592US

Date of Deposit: January 27, 2005

I hereby certify that the following attached paper(s) and/or fee

1. Response To Final Office Action (12 pages); and
2. Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Mail Stop AF, Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Jafet Cotto

(Typed or printed name of person mailing papers(s) and/or fee)

(Signature of person mailing paper(s) and/or fee)

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.  
Three World Financial Center  
New York, NY 10281-2101  
(212) 415-8700 Telephone  
(212) 415-8701 Facsimile



Docket No: 4754-4000

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Prashant Parikh and Stanley Peters  
Serial No. : 10/299,359                      Group Art Unit: 2175  
Filed : November 19, 2002              Examiner: Wu, Yicun  
For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

Mail Stop AF  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE TO FINAL OFFICE ACTION**

Responsive to the Final Official Action mailed December 3, 2004, Applicants respectfully request reconsideration in view of the following remarks. This "Response to Office Action" is being filed within 2 months of the date the Final Office Action was mailed.

The currently pending claims are reflected in the listing of claims which begins on page 2 of this paper. None of the claims have been amended.

Remarks/Arguments begin on page 4 of this paper.

**LISTING OF CLAIMS**

1. (original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:  
at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,  
identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and  
jumping to the at least one node.
2. (original) The method of claim 1 further comprising:  
providing a verbal description associated with the at least one node to the user.
3. (original) The method of claim 1 further comprising:  
searching a thesaurus correlating keywords with synonyms.
4. (original) The method of claim 3 wherein the searching further comprises:  
identifying the at least one word as synonymous with the at least one keyword.
5. (original) The method of claim 1 further comprising:  
determining that the at least one word is neither a keyword nor a synonym of any keyword; and  
learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords.

**PATENT**

**Docket No: 4754-4000**

6. (original) The method of claim 5 further comprising:  
adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

Claims 8-26 (canceled).

**REMARKS**

This responds to the Final Office Action mailed December 3, 2004. Claims 1-7 are currently pending. The objection to the claims because of certain informalities has been maintained. Claims 1-7 have been rejected as unpatentable, under 35 U.S.C. §103(a), over Lin et al. U.S. Pat. No. 6,676,159 in view of Thiesson et al. U.S. Patent No. 6,408,290. Applicants again respectfully traverse on the grounds that neither Lin et al. nor Thiesson et al. bear any meaningful relation to the invention claimed (or described) in the instant application. Accordingly, reconsideration of the objections and rejections is respectfully urged in view of the following which adds to the remarks provided in response to the prior Office Action which, in the interest of brevity, are incorporated herein by reference as if fully set forth herein.

***Specification Objections***

The withdrawal of the objection to the Specification is gratefully acknowledged.

***Claim Objections***

The clarification provided by the instant Final Office Action as to the alleged problem with claims 2 through 6, namely that the term “jumping” used in those claims “is not clearly defined in Applicant’s [sic] specification.” For completeness, it is noted that the term “jumping” appears in all 7 claims, not just claims 2 through 6. The objection is respectfully traversed for the following reasons.

Applicants have defined the term “jumping”, both explicitly and by implication, in the Specification to mean a traversal from one node or vertex to another node or vertex not directly connected to it, without traversal through intervening nodes or vertices. In simplest form, the term is defined in connection with the description of FIG. 2 and in the following paragraph:



By making use of these associations the “tree” can be negotiated by allowing presentation of relevant verbal descriptions for the nodes associated with a term, irrespective of where in the hierarchy they are, thereby causing a “jump” to a particular node without necessarily traversing the tree in the rigid hierarchical manner. (Application at paragraph spanning p. 8-9).

The following representative, non-exhaustive examples from the Specification further illustrate and/or support the above definition (indicated for the Examiner’s convenience by way of underlining).

FIG. 2 is an example portion of a graph used to illustrate jumping among nodes in accordance with one variant of the invention; (Application at p.3, 2nd to last ¶).

Particular implementations make it possible to jump laterally from one vertex to another if the navigation enters a wrong branch of the tree or if the user changes his goal. The approach is accomplished through associating each vertex with a verbal description (or prompt), and matching words in users' requests and responses with these verbal descriptions to enable the selection of vertices that may not be directly connected to the user's current location in the graph or tree by an edge. (Application at p. 5, last ¶).

Example 1 illustrates, in simplified form, how an index is used to jump among nodes with reference to FIG. 2. (Application at p. 9-11, “Example 1”).

Having illustrated a simple “node jump” a more complex (and likely) scenario can be shown. (Application at p. 11, “Example 2”).

Example 4 illustrates the addition of a simple thesaurus as an aspect of a system so that a synonym of a keyword may also be used by the system to jump to the desired nodes in the graph. Example 4 is discussed with reference to a portion 400 of an interactive television program listing system as shown in FIG. 4. (Application at p. 14-16, “Example 4”).

As a result, a subsequent use of the same term “fast food” will enable the system to jump directly to the “pizza” node 504. (Application at p. 18, “Example 5” spanning pp. 16-18).

This is advantageously made possible because of the system’s ability to “jump” among nodes. Thus, it may occur that a node within the tree is never accessed, but a child node of that node is. (Application at p. 23).

Having now described various component aspects of different variants implementing the invention, by way of the above examples, it should be understood that the “jumps” can occur from any node to any node, i.e. vertically and/or laterally and to another node that is higher, lower or on the same “level” as the node from which the jump is made. All manner of vertical and lateral jumps from multiple nodes to multiple nodes are possible. (Application at p. 24).

While it is true that some more advanced interactive voice response systems available today allow for natural language interactions, they are highly constrained natural language interactions with relatively little or no intervention by a human operator. However, unlike with systems using the invention, those systems still require direct path traversal through the hierarchy (i.e. jumping to non-connected nodes is not contemplated or possible, let alone allowed). (Application at paragraph spanning pp. 26-27).

Accordingly, it is respectfully submitted that the term “jumping” is clearly defined in the Specification and the objection should be withdrawn.

***Claim Rejections – 35 USC § 103***

Claims 1-7 were rejected as being unpatentable for obviousness over Lin et al. U.S. Pat. No. 6,676,159 (“Lin”) in view of Thiesson et al. U.S. Patent No. 6,408,290 (“Thiesson”). The rejections are again respectfully traversed for the following additional reasons.

First, it is reiterated that neither the Lin nor Thiesson references render any of the claims obvious, taken alone or in combination because neither of those references bear a meaningful relationship to the instant claims.

As best understood from the rejections, it appears that the Office Action is either misunderstanding the invention (presumed from the “jumping”-related objection) or misinterpreting the cited references (presumed from the fact that Bayesian causal networks have absolutely no relationship whatsoever to the claimed invention).

With respect to the invention of claims 1 and 7, the following explanation should suffice. If one looks at the simplified hierarchical network application FIG. 1 (which is generic to the

**PATENT**

**Docket No: 4754-4000**

various specific applications described in the application where such a network could be used), according to the prior art, if one were to navigate through the graph, one would always start at the box labeled “1”. To get to the box labeled “5”, one would have to navigate from box “1” to box “2” to box “5”. If it turned out that the user’s intended goal really should have placed them at box “7”, they would have to back-navigate from box “5” to box “2” to box “1” then to box “3” and finally to box “7”. In contrast, with the same example, if the user had navigated to box “5” but the intended goal would have placed them at box “7”, through use of the invention of claim 1 or claim 7, the “at least one keyword” (claim 1) or the “meaningful term” (claim 7) makes it possible for the system to know, in response to the user’s input, that the intended goal would place the user at box “7” and it would cause a direct jump from box “5” to box “7” without traversal through a path containing any of the boxes in between even though there is no direct connection between box “5” and box “7”!

More concretely, assume FIG. 1 represented an Interactive Voice Response (IVR) travel reservation system where the boxes labeled “2”, “4” and “5” represent aspects involved with booking a domestic reservation and the boxes under the box labeled “3” represent aspects involved with booking an international flight. A customer wishing to book a flight to “San Jose” in Costa Rica could conceivably unintentionally navigate down through the nodes associated with a domestic booking by saying “San Jose” at an early point only to realize that fact when California hotels are mentioned. At that point, with the conventional systems of the prior art, the person would have to back-traverse through the options and try to navigate down through the international options by first mentioning “Costa Rica” at the starting point. In contrast, with the methods of claim 1 or claim 7, the person might simply say, “not California, I want San Jose, Costa Rica” at which point, the system would directly “jump” the person to the node under the

**PATENT**

**Docket No: 4754-4000**

box labeled “3” associated with booking travel in Costa Rica without forcing the person to back-navigate through the options or restart.

With respect to the cited art, it appears that the Office Action is viewing the Thiesson and Lin references as disclosing hierarchically interconnected “navigable” nodes. While it is true that both Thiesson and Lin disclose “nodes” in a general computer science sense, as to both references the similarity stops there. Moreover, Applicants’ do not claim a hierarchical network per se, such networks per se well predating the instant invention, but rather a particular method for navigation within such a network. With respect to Thiesson, it discloses various Bayesian networks. In Thiesson, those networks are simply a way to represent cause and effect interrelationships among various variables. This is most clearly evident with reference to FIG. 2 of Thiesson which relates to “troubleshooting automobile problems.” (col. 2, lines 38-39). In that figure, each oval can be considered a “node” but each such “node” represents a variable that may be affected by or can effect a change in another “node.” For example, as shown, the variable represented by the oval labeled “Battery Power 212” is a function of the variable labeled “Battery 208” which is, in turn, a function of the variable labeled “Battery Age 202”. “Battery Power 212” is also a function of the variable labeled “Charge 210” which is, in turn, a function of two variables – “Alternator 204” and “Fan Belt 206”. Similarly, the variable “Battery Power 212” has a direct effect upon the variables represented by “Radio 214”, “Lights 216”, “Engine Turns Over 218”, and “Gas Gauge 222” and an indirect effect upon the “Engine Start 234” variable via the “Engine Turns Over 218” variable. In that regard, the “nodes” are not “navigable” at all, let alone as that term is used in the claims (i.e. travelable). Moreover, there is simply no jumping from any node to any other node because the nodes are simply interrelated variables.

**PATENT**

**Docket No: 4754-4000**

Taken another way, the arrangement of Thiessen FIG. 2, is like a spreadsheet with each “node” (e.g. oval) representing a cell in the spreadsheet and each cell containing a formula representing the effect other cells have on its value. If one changes the value in a given spreadsheet cell, for argument sake the cell at the intersection of row 9 and column 3, all other cells having a formula that includes the value at row 9, column 3 will automatically modify to reflect that change. There is no navigation among the cells.

The other arrangements of Thiesson, illustrated for example in FIGS. 10, 11, 25, 27 and 29 are of similar character in that they all “causal” networks which represent some cause and effect relationship among variables. In short, every “network” of Thiesson is simply an abstract representation of a given system and interrelationships among its various components.

Thus, Thiesson has absolutely nothing to do with the claimed invention.

Moreover, even assuming that the arrangements of Thiesson did represent “a system having multiple navigable nodes interconnected in a hierarchical arrangement” as called for by the claims, (a point that is emphatically disputed) there is simply no way to navigate through that arrangement according to the claimed method. With reference to FIG. 2 of Thiesson, there is simply no change that can be made to the “Battery 208” variable that will have any affect on a non-connected variable (e.g. the only conceivable analog to a “jump”), for example, the “Gas 224” variable. Moreover, in Thiesson, no change can be made to the “Battery 208” variable that will affect the “Engine Start 234” variable without effecting a change to both the “Battery Power 212” and “Engine Turns Over 218” variables intervening in between. Yet, that is the very situation called for by the instant claims.

Still further, the “nodes” in certain of the “networks” in Thiesson (e.g. particularly those of FIGS. 10, 11 cited in the previous Office Action) are all directly connected. In such a case, by

definition, there is no instance where a node “is not directly connected to” another node. Thus, those networks are the antithesis of the kind of network needed for the claimed invention.

With that backdrop, the arguments made with respect to Thiesson in response to the prior Office Action are reiterated and re-emphasized without repetition, as if fully set forth herein, in the interest of brevity.

As the original Office Action and instant Final Office Action recognized, even to the extent Lin discloses “a system having multiple navigable nodes interconnected in a hierarchical arrangement” (a point disputed, but irrelevant to the argument), with the Lin reference there is no navigation from one node to another except by a traversal through every node in a path in the hierarchy leading from one to the other – the very antithesis of the instant invention. In addition, the arguments made with respect to the inapplicability of Lin, made in Applicants’ prior response, are still valid and thus are reiterated and incorporated herein by reference, for brevity, as if fully set forth herein.

In sum, it is respectfully submitted that Thiesson does not, and can not supply the disclosure attributed to it in the Final Office Action. Absent that disclosure, acknowledged by the Office Action to be missing from Lin, the obviousness rejection of the Final Office Action fails as a matter of law and the obviousness rejection should be withdrawn because neither reference alone discloses, nor in combination would achieve, the claimed invention.

For completeness, in the event an appeal is necessary, it is respectfully submitted that the Office Action does not even make a *prima facie* case of obviousness due to the absence of certain specific claim elements as set forth below. Moreover, it is respectfully urged that, to the extent the Office Action, is applying any definition of “jumping” other than that set forth in the application itself, such alternative definition be discarded because its use is improper as a matter

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**Docket No: 4754-4000**

of law and Patent Office practice. See M.P.E.P. §2111.01(III) (“Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim.” (emphasis added) citing Toro C. v. White Consolidated Indus. Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999)).

As to claim 1, in view of the above, the cited art does not disclose “A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement” because, as described above, the “nodes” in those references are simply representative of cause and effect relationships – i.e. there are no navigable nodes. Nor does the cited art disclose “identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword” or the recited “jumping to the at least one node” as recited therein. Each such element, being wholly absent from the cited references taken alone or in combination, represents a separate, independent and distinct basis for the patentability of claim 1.

Claims 2 through 6, being dependent from claim 1 (either directly or indirectly) are allowable for the same reasons. Moreover, in view of the elements of claim 1 that are absent from the prior art, to the extent claims 2 through 6 further involve, refine or interact with those elements, claims 2 through 6 necessarily add aspects that are nonobvious over the cited art and thus provide independent bases for allowance.

Claim 7 is similarly allowable because the cited art does not disclose “A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices” for the same reasons described in connection with claim 1 nor does it disclose either “selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between

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the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex” or “jumping to the vertex.”

Accordingly, it is respectfully submitted that all of the claims are allowable and early favorable action in that regard is respectfully requested.

**CONCLUSION**

Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims and early favorable allowance of this application.

**AUTHORIZATION**

Although no additional fees are believed due for consideration of this Response on the merits, the Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 4754-4000.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.



Richard Straussman  
Registration No. 39,847

Dated: January 27, 2005

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**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective October 1, 2001

Application or Docket Number

10/299,359  
~~4238-11001~~

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS	26	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	26 minus 20 = *	6
INDEPENDENT CLAIMS	6 minus 3 = *	3
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

\* If the difference in column 1 is less than zero, enter "0" in column 2

SMALL ENTITY TYPE  OR OTHER THAN SMALL ENTITY

RATE	FEE	OR	RATE	FEE
BASIC FEE	370.00		BASIC FEE	740.00
X\$ 9=	54		X\$18=	
X42=	126		X84=	
+140=			+280=	
TOTAL	550		TOTAL	

**CLAIMS AS AMENDED - PART II**

1-2705

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total * 7	Minus ** 26	=
	Independent * 2	Minus *** 6	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

SMALL ENTITY OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective October 1, 2001

Application or Docket Number

10/299,359  
~~4428 4101~~

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS	26	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	26 minus 20 = *	6
INDEPENDENT CLAIMS	6 minus 3 = *	3
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

\* If the difference in column 1 is less than zero, enter "0" in column 2

**CLAIMS AS AMENDED - PART II**

1-14-04

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total * 26	Minus ** 26	= /
	Independent * 6	Minus *** 6	= /
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

3-8-04

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total * 7	Minus ** 26	= /
	Independent * 2	Minus *** 6	= /
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

9-3-04

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total * 7	Minus ** 26	= /
	Independent * 2	Minus *** 6	= /
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

\* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.  
 \*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."  
 \*\*\* If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."  
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

SMALL ENTITY TYPE  OR OTHER THAN SMALL ENTITY

RATE	FEE	OR	RATE	FEE
BASIC FEE	370.00		BASIC FEE	740.00
X\$ 9=	54		X\$18=	
X42=	126		X84=	
+140=			+280=	
TOTAL	550		TOTAL	

SMALL ENTITY OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=			X\$18=	
X42=			X84=	
+140=			+280=	
TOTAL ADDIT. FEE			TOTAL ADDIT. FEE	

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
27123	7590	12/03/2004	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			WU, YICUN	
			ART UNIT	PAPER NUMBER
			2165	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 03 September 2004.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-7 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some \* c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**SAM RIMELL**  
**PRIMARY EXAMINER**

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_.

**III. DETAILED ACTION**

1. Claims 1-7 are presented for examination.
2. Applicant's arguments submitted on 9-3-2004 with respect to claims 1-7 have been reconsidered but are not deemed persuasive for the reasons set forth below.

**Specification objection**

3. Examiner is withdrawing the Specification objection.

**Claim objection**

4. As to applicant remarks page 5, "Claim Objection", Examiner maintains Claim Objection of office action dated 6-4-2004, because the claimed "jumping to the at least one node" and "jumping to the vertex" in particular "jumping" is not clearly defined in Applicant's specification. Therefore, Examiner rejected claim 2-6, using the broadest interpretation of "Jumping", therefore, Examiner's "Claim Objection" is maintained.

Response to Applicant' Remarks

5. Examiner has completed a through study of Applicant's amendment of September 3, 2004.

6. Especially, Applicant's amendments to claims 1-7 and remarks at pages 4-9 of the Amendment of 9-3-2004 has been carefully studied and reviewed.

7. Applicant's amendments to claims 1-7 further direct the claimed invention into a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement.

8. Examiner has carefully and thoroughly studied and reviewed Applicant's amendment of 9-3-2004. Examiner asserts that Lin et al. (U.S. Patent 6,675,159) in combination with Thiesson et al. (U.S. Patent 6,408,290) teaches Applicant's claimed invention of a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement.

In addition, the specially discussed feature of the claimed invention ("the input containing at least one word identifiable with at least one keyword from among multiple keywords,

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identifying at least one node, other than the first node (Lin et al. col. 10, lines 26-40).

And in addition, Thiesson et al. teaches "not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node" (Thiesson et al. Fig. 10, from H<sub>d1</sub> to O<sub>c1</sub>).

9. Applicant is inaccurate for the reasons explicitly stated in the first Office Action. Examiner asserts that Lin et al. (U.S. Patent 6,676,159) in combination with Thiesson et al. (U.S. Patent 6,408,290) teaches Applicant's claimed invention of a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement.

10. These reasons have been explicitly stated in the first Office Action. Please see the next section.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Patent 6,675,159) in view of Thiesson et al. (U.S. Patent 6,408,290).

As to Claims 1 and 7, Lin et al. discloses a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:

at a first node, receiving an input from a user of the system (Lin et al. col. 9, lines 26-45), the input containing at least one word identifiable with at least one keyword from among multiple keywords, identifying at least one node, other than the first node (Lin et al. col. 10, lines 26-40).

Lin et al. does not teach not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.



Thiesson et al. teaches not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node (Thiesson et al. Fig. 10-11).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. wherein not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. by the teaching of Thiesson et al. because providing the not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node allows the improvement of collaborative filtering systems as taught by Thiesson et al. (col. 7, lines 10-16).

As to Claim 2, Lin et al. as modified teaches a method wherein the searching comprising:

providing a verbal description associated with the at least one node to the user (providing a verbal description is well known in the art).

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As to Claim 3, Lin et al. as modified teaches a method wherein the searching comprising:

searching a thesaurus correlating keywords with synonyms (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 4, Lin et al. as modified teaches a method wherein the searching comprising:

identifying the at least one word as synonymous with the at least one keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 5, Lin et al. as modified teaches a method wherein the searching comprising:

determining that the at least one word is neither a keyword nor a synonym of any keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15); and

learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

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As to Claim 6, Lin et al. as modified teaches a method wherein the searching comprising:

adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

Conclusion

13. THIS ACTION IS MADE FINAL, Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory- period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136 (a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply-expire later than SIX MONTHS from the mailing date of this final action.

Points of contact


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 571-272-4087. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 571-272-4083. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Yicun Wu  
Patent Examiner  
Technology Center 2100

November 25, 2004

  
SAM RIMELL  
PRIMARY EXAMINER

**Index of Claims**



Application No.

10/299,359

Examiner

Yicun Wu

Applicant(s)

PARIKH ET AL.

Art Unit

2165

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

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SEARCH			
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INTERFERENCE SEARCHED			
Class	Sub.	Date	Exmr.

SEARCH NOTES		
(List databases searched. Attach search strategy inside.)		
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SEARCH NOTES		
(List databases searched. Attach search strategy inside.)		
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PATENT

Docket No: 4428-4001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Prashant Parikh and Stanley Peters  
Serial No. : 10/299,359                      Group Art Unit: 2175  
Filed : November 19, 2002              Examiner: Wu, Yicun  
For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RECEIVED**

SEP 08 2004

Technology Center 2100

RESPONSE TO OFFICE ACTION

Responsive to the Official Action dated June 4, 2004, Applicants respectfully request reconsideration in view of the following remarks.

The currently pending claims are reflected in the listing of claims which begins on page 2 of this paper. None of the claims have been amended.

Remarks/Arguments begin on page 4 of this paper.

**LISTING OF CLAIMS**

1. (original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:  
  
at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,  
  
identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and  
  
jumping to the at least one node.
  
2. (original) The method of claim 1 further comprising:  
  
providing a verbal description associated with the at least one node to the user.
  
3. (original) The method of claim 1 further comprising:  
  
searching a thesaurus correlating keywords with synonyms.
  
4. (original) The method of claim 3 wherein the searching further comprises:  
  
identifying the at least one word as synonymous with the at least one keyword.
  
5. (original) The method of claim 1 further comprising:  
  
determining that the at least one word is neither a keyword nor a synonym of any keyword; and  
  
learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords.

6. (original) The method of claim 5 further comprising:  
adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

Claims 8-26 (canceled).

REMARKS

This responds to the Office Action mailed June 4, 2004. Claims 1-7 are currently pending. The specification has been objected to because of certain informalities. Claims 2 and 7 have also been objected to because of informalities. Claims 1-7 have been rejected as unpatentable, under 35 U.S.C. §103(a), over Lin et al. U.S. Pat. No. 6,676,159 in view of Thiesson et al. U.S. Patent No. 6,408,290. Reconsideration of the objections and rejections and allowance of the claims, in view of the following, is respectfully requested.

***Specification Objection***

The specification has been objected to because of certain informalities. Specifically, the Specification has been objected to because the instant specification allegedly does not conform to the preferred layout for a utility application. The objection is respectfully traversed and applicants decline to revise the application as suggested. First, the instant specification conforms to the guidelines except to the extent that it does not include inapplicable section headings and the section headings are in bold type. As to the inapplicable headings, there is simply no rational reason why applicants should be required to amend the specification to add irrelevant section headings only to follow them with the entry – “None.” As to the use of bold type for the section headings, since patents are neither typeset nor published with bold fonts, the objected to type will be dispensed with upon typesetting by the Patent Office (or contractor) for publication.

Second, the “guidelines” are permissive, not mandatory. Therefore, the specification can not be in violation to something that merely describes what an application “should include” and what headings “should appear” therein.

Accordingly, withdrawal of the objection is respectfully requested.

***Claim Objections***

Claims 2 and 7 have been objected to because “the Examiner is not clear about the meaning of the claim[s].” As an initial matter, although the Office Action refers to claim 2, the quoted language first appears in claim 1. Accordingly, these Remarks presume that claim 1 was intended. If this presumption is in error and the “objection is maintained”, detailed clarification in the next Office Action is respectfully requested. Moreover, even assuming that the “objection” applied to claim 1, claims 2 through 6 are dependent (directly or ultimately) from claim 1 and necessarily thereby contain the same quoted language. Accordingly, the objection to only the independent claim (if that is what was intended) does not make sense. Moreover, the “objection” is further not understood since the Office Action does not reject the identified claims as indefinite and does not provide any further information regarding what is allegedly “not clear” about the quoted claim language – particularly, since the Office Action has no problem alleging that Thiessen discloses this aspect (although, in fact, it does not). Accordingly, withdrawal of the objection to the claims is requested.

***Claim Rejections – 35 USC § 103***

Claims 1-7 were rejected as being unpatentable for obviousness over Lin et al. U.S. Pat. No. 6,676,159 (“Lin”) in view of Thiesson et al. U.S. Patent No. 6,408,290 (“Thiesson”). The rejections are respectfully traversed for the following reasons.

First, in overview, neither the Lin nor Thiesson references render any of the claims obvious, taken alone or in combination. Neither of those references bear a meaningful relationship to the instant claims because neither provides for anything more than direct traversal along a path of connected nodes.

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The system of Lin is a search and retrieval system which enables a user to retrieve text documents in response to a natural language query. The system works by first converting each document into a predicate structure (i.e. an abstract formal representation based on the parts of speech contained in the sentences in the document – for example, a statement in the document of “The octopus has a heart” would be parsed into “the-determiner octopus-noun have-verb a-determiner heart-noun” which is further converted into “have<octopus, heart>”, a predicate structure). When the system receives an input query, it performs the same kind of conversion on the input query into a predicate structure. Finally, it attempts to match the predicate structure of an input query with the predicate structure created from the documents. If there is an exact match, the document containing the match is retrieved. When an exact match fails, the system attempts to match the query predicate structure with synonymous document predicate structures. For example, the query predicate structure may have two arguments (e.g. judge<investors, agreement>) whereas the document predicate structure in question may have three arguments (e.g. cheer<investors, agreement, lawmakers>) – in which case that predicate structure would be treated as a synonymous structure and receive a lower score. Lin also includes a Bayes classifier which classifies the set of documents and the query into topics (or domains) and then matches topics. This operates on the basis of Bayes’ rule in the theory of probability. Lin does not provide for navigation through a hierarchically arranged system whereby direct traversal through the arrangement can occur among nodes or vertices that are neither directly nor indirectly connected to each other (i.e. one need not traverse up through the hierarchy to a common ancestor but rather can jump directly to that node – even if there is no common ancestor or the only common ancestor is the root).

The system of Thiesson is set in the framework of Bayesian networks, a technique for graphically representing relationships between random variables (from the theory of probability) in directed acyclic graphs and then using network relationships to compute the values of these variables based on certain input values and specifically relates to mixing of such networks. As such, it bears no meaningful relationship to the system of Lin and the Office-Action cited figures, FIGS. 10 and 11, depict relationships among variables in a simple Bayesian Network (FIG. 10) and a “hypothesis-specific Bayesian Network (FIG. 11). Thiessen does not disclose the teaching attributed to it by the Office Action as evidenced by the discussion of those figures at col. 17, lines 40-64. Moreover, even if FIG. 10 and 11 are taken wholly out of context in the manner posited by the Office Action (i.e. that the depiction is of navigable nodes as opposed to the reality of being interrelated variables), such that every circle in the FIGS. represented a node or vertex as claimed, as clearly stated in the discussion at col. 17, every variable is connected to every other variable of a different type. Moreover, continuing with the incorrect assertion of the Office Action, there is no ability to directly jump from, for example,  $O_{c2}$  to  $O_{d2}$ .

Still further, the referenced passage of Thiessen (col. 7, lines 10-16) stating that collaborative filtering can be improved because of certain limitations is a far cry from a teaching jumping among non-connected nodes at all, let alone providing sufficient teaching that the Lin and Thiessen could be combined in a manner that would achieve the claimed invention.

In sum, neither reference alone discloses, nor in combination would achieve, the claimed invention.

Moreover, it is respectfully submitted that the Office Action does not even make a *prima facie* case of obviousness due to the absence of certain claim elements as set forth below.

As to claim 1, in view of the above, the cited art does not disclose “A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement” nor does it disclose “identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword” or the recited “jumping to the at least one node” as recited therein. Each such element, being wholly absent from the cited references taken alone or in combination, represents a separate, independent and distinct basis for the patentability of claim 1.

Claims 2 through 6, being dependent from claim 1 (either directly or indirectly) are allowable for the same reasons. Moreover, in view of the elements of claim 1 that are absent from the prior art, to the extent claims 2 through 6 further involve, refine or interact with those elements, claims 2 through 6 necessarily add aspects that are nonobvious over the cited art and which provide independent bases for allowance.

Claim 7 is similarly allowable because the cited art does not disclose “A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices” nor does it disclose either “selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex” or “jumping to the vertex.”

Accordingly, it is respectfully submitted that all of the claims are allowable and early favorable action in that regard is respectfully requested.



**CONCLUSION**

Based on the foregoing, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims and early favorable allowance of this application.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE OF THIS DOCUMENT IS ATTACHED. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is further requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above Deposit Account.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: September 3, 2004

By:



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<b>CHANGE OF CORRESPONDENCE ADDRESS</b> <i>of Application</i>  Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10/299,359
	Filing Date	November 19, 2002
	First Named Inventor	Prashant Parikh
	Group Art Unit	2175
	Examiner Name	Wu, Yicun
	Attorney Docket No.	4428-4001

Please change the Correspondence Address for the above-identified application to:

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Applicant

Assignee of record of the entire interest.

Certificate under 37 CFR 3.73(b) is enclosed.

Attorney or agent of record.

Typed or Printed Name	Richard Straussman	Registration No.	39,847
Signature			
Date	September 3, 2004		



9-7-04

2175

Docket No.: 4428-4001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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**Serial No. :** 10/299,359                      **Group Art Unit:** 2175

**Filed :** November 19, 2002                      **Examiner:** Wu, Yicun

**For :** NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

EXPRESS MAIL CERTIFICATE

Commissioner for Patents  
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Date of Deposit: September 3, 2004

I hereby certify that the following attached paper(s) and/or fee

1. Response To Office Action (9 pages);
2. Change Of Correspondence Address (1 page); and
3. Return postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

NILBER ALVANZA

(Typed or printed name of person mailing papers(s) and/or fee)

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File



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023

7590 06/04/2004  
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345 Park Avenue  
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EXAMINER

WU, YICUN

ART UNIT PAPER NUMBER

2175

DATE MAILED: 06/04/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

ppf

<b>Office Action Summary</b>	<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2175	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 08 March 2004.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-7 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-7 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

DIANE D. MIZRAHI  
 PRIMARY PATENT EXAMINER  
 TECHNOLOGY CENTER 2100

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a)  All    b)  Some \*    c)  None of:
    - 1.  Certified copies of the priority documents have been received.
    - 2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    - 3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 5.
- 4)  Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application (PTO-152)
- 6)  Other: \_\_\_\_\_.

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**III. DETAILED ACTION**

1. Claims 1-7 are presented for examination.

***Specification***

2. The Specification of the disclosure is objected to for the following reasons:

- A. Arrangement of the Specification of the disclosure is objected to because of the following informalities:

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

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- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Appropriate correction is required.

#### Claim Objections

3. Claim 2 is objected to because of the following informalities: the Examiner is not clear about the meaning of the claim. "...jumping to the at least one node ."

Claim 7 is objected to because of the following informalities: the Examiner is not clear about the meaning of the claim. "... jumping to the vertex."

Appropriate correction is required.

#### Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (U.S. Patent 6,676,159) in view of Thiesson et al. (U.S. Patent 6,408,290).

As to Claims 1 and 7, Lin et al. discloses a method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:

at a first node, receiving an input from a user of the system (Lin et al. col. 9, lines 26-45), the input containing at least one word identifiable with at least one keyword from among multiple keywords, identifying at least one node, other than the first node (Lin et al. col. 10, lines 26-40).

Lin et al. does not teach not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.



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Thiesson et al. teaches not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node (Thiesson et al. Fig. 10-11).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. wherein not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Lin et al. by the teaching of Thiesson et al. because providing the not directly connected to the first node but is associated with the at least one keyword, and jumping to the at least one node allows the improvement of collaborative filtering systems as taught by Thiesson et al. (col. 7, lines 10-16).

As to Claim 2, Lin et al. as modified teaches a method wherein the searching comprising:

providing a verbal description associated with the at least one node to the user (providing a verbal description is well known in the art).

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As to Claim 3, Lin et al. as modified teaches a method wherein the searching comprising:

searching a thesaurus correlating keywords with synonyms (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 4, Lin et al. as modified teaches a method wherein the searching comprising:

identifying the at least one word as synonymous with the at least one keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

As to Claim 5, Lin et al. as modified teaches a method wherein the searching comprising:

determining that the at least one word is neither a keyword nor a synonym of any keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15); and

learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

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As to Claim 6, Lin et al. as modified teaches a method wherein the searching comprising:

adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword (Lin et al. col. 8, lines 58-67 and col. 26, lines 30-42 col. 27 lines 1-15).

Prior Art Made of Record

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wical (U.S. Patent No. 6,038,560);

Mahesh (U.S. Patent No. 6,654,731);

Roux (U.S. Patent No. 6,678,677).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 703-305-4889. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yicun Wu  
Patent Examiner  
Technology Center 2100

May 26, 2004

DIANE Y. MIZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

**Notice of References Cited**

Application/Control  
10/299,359

Applicant(s)/Patent Under  
Reexamination  
PARIKH ET AL.

Examiner  
Yicun Wu

Art Unit  
2175

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,038,560	03-2000	Wical, Kelly	707/5
	B	US-6,408,290	06-2002	Thiesson et al.	706/52
	C	US-6,654,731	11-2003	Mahesh, Kavi	706/45
	D	US-6,678,677	01-2004	Roux et al.	707/3
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



FORM PTO-1449

INFORMATION DISCLOSURE CITATION

Attorney Docket: 4428-4001	Serial No.: 10/299,359
Applicant: Prashant Parikh and Stanley Peters	
Filing Date: November 19, 2002	Group Art Unit: 2175

U.S. PATENT DOCUMENTS

Examiner Initial	Patent Number	Issue Date	Name	Class	Sub-Class	Filing Date
<i>WV</i>	6,405,188	June 11, 2002	Schwartz et al.			July 31, 1998
<i>WV</i>	6,675,159	January 6, 2004	Lin et al.			July 27, 2000

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FOREIGN PATENT DOCUMENTS

Examiner Initial	Patent Number	Publication Date	Country	Class	Sub-Class	Translation

OTHER DOCUMENTS

International Search Report for PCT/US03/34134, dated April 8, 2004 (1 page)	
Examiner <i>WV</i>	Date Considered 5/24/04
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP §609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

2175



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**Filed :** November 19, 2002              **Examiner:** Wu, Yicun  
**For :** NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

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I hereby certify that the following attached paper(s) and/or fee

1. Information Disclosure Statement (3 pages);
2. PTO Form 1449 (1 page);
3. Copy of 2 references cited in PTO Form 1449 and copy of International Search Report for PCT/US03/34134, dated April 8, 2004 (1 page); and
4. Return postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Mail Stop DD, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Anita Coughlan

(Typed or printed name of person mailing papers(s) and/or fee)

(Signature of person mailing paper(s) and/or fee)

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.  
345 Park Avenue  
New York, NY 10154-0053  
(212) 758-4800 Telephone  
(212) 751-6849 Facsimile



Docket No. 4428-4001

#5  
5/18/04  
A.W.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicant(s):** Prashant Parikh and Stanley Peters

**Serial No.:** 10/299,359

**Group Art Unit:** 2175

**Filed:** November 19, 2002

**Examiner:** Wu, Yicun

**For:** NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

RECEIVED

INFORMATION DISCLOSURE STATEMENT

MAY 10 2004

Technology Center 2100

Mail Stop DD  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is filed in accordance with 37 C.F.R. §§1.56, 1.97 and 1.98. The items listed on Form PTO-1449, a copy of which is enclosed, are made of record to assist the Patent and Trademark Office in its examination of this application. The Examiner is respectfully requested to fully consider the items and to independently ascertain their teaching.

1.  For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, an English language translation of that item or a portion thereof or a concise explanation of the relevance of that item is enclosed:

---

2.  For each of the following items listed on the enclosed copy of Form PTO-1449 that is not in the English language, a concise explanation of the relevance of that item is incorporated in the specification of the above-identified application.
3.  Any copy of the items listed on the enclosed copy of Form PTO-1449 that is not enclosed with this Information Disclosure Statement was previously cited by or submitted to the Patent and Trademark Office in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
4.  **No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with:**
  - 37 C.F.R. §1.97(b)(1), within three months of the filing date of a national application other than a CPA; or
  - 37 C.F.R. §1.97(b)(2), within three months of the date of entry into the national stage as set forth in §1.491 in an international application; or

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**PATENT**

Docket No. **4428-4001**

- 37 C.F.R. §1.97(b)(3), before the mailing date of a first Office action on the merits;  
or
- 37 C.F.R. §1.97(b)(4), before the mailing date of a first office action after the filing of an RCE under §1.114.
5.  No fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a Notice of Allowance (where there has been no prior final action), and is accompanied by one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below.
6.  A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(c), after the period specified in paragraph 4 above but before the mailing date of a final action or a notice of allowance (where there has been no prior final action):
- A check in the amount of \$180.00 is enclosed in payment of the fee.
- Charge the fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
7.  A fee is due under 37 C.F.R. §1.17(p) for this Information Disclosure Statement since it is being filed in compliance with 37 C.F.R. §1.97(d), after the mailing date of a final action or a notice of allowance, whichever comes first, but before payment of the issue fee, and is accompanied by:
- a. one of the certifications pursuant to 37 C.F.R. §1.97(e) set forth in paragraph 9 below; and
- b. the fee due under 37 C.F.R. §1.17(p) which is paid as set forth in paragraph 11 below.
8.  This Information Disclosure Statement is being filed in compliance with:
- a.  37 C.F.R. §1.313(b)(3) or §1.313(c)(1), after the issue fee has been paid an information cited in this Information Disclosure Statement may render at least one claim unpatentable and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h);
- b.  37 C.F.R. §1.313(c)(2) or §1.313(c)(3), after the issue fee has been paid and information cited in this Information Disclosure Statement is to be considered in a Request for Continued Examination (RCE) or a Continuation application upon abandonment of the instant application and is accompanied by the attached Petition To Withdraw Application From Issue and fee pursuant to 37 C.F.R. §1.17(h).
- c.  The fee due under 37 C.F.R. §1.17(h) is paid as set forth in paragraph 11 below.

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**PATENT**

Docket No. **4428-4001**

9.  I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Second Information Disclosure Statement.
- I hereby certify that no item of information in the Information Disclosure Statement filed herewith was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
10.  This document is accompanied by  a Search Report  Communication which was cited in a corresponding  PCT or  Foreign counterpart application
11.  A check in the amount of \$\_\_\_\_\_ is enclosed in payment of the fees due under 37 C.F.R. §§1.17(h) and 1.17(p).
- Charge the fees due under 37 C.F.R. §§1.17(h) and 1.17(p) to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- The Commissioner is hereby authorized to charge any additional fees which may be required for this Second Information Disclosure Statement, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

By: \_\_\_\_\_

Richard Straussman  
Registration No. 39,847

Dated: May 6, 2004

Correspondence Address:

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345 Park Avenue  
New York, NY 10154-0053  
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Express Mail Certificate Label No. EV357795598US



3-10-04

2175

Docket No.: 4428-4001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**Applicant(s) :** Prashant Parikh and Stanley Peters  
**Serial No. :** 10/299,359                      **Group Art Unit:** 2175  
**Filed :** November 19, 2002              **Examiner :** Wu, Yicun  
**For :** NAVIGATION IN A HIERARCHICAL STRUCTURED TRANSACTION PROCESSING SYSTEM

**EXPRESS MAIL CERTIFICATE**

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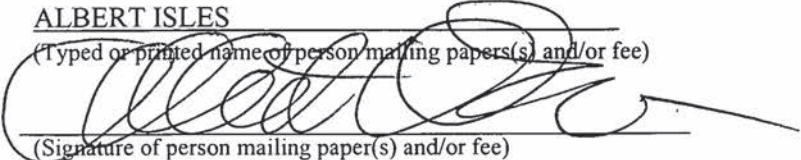
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**Date of Deposit: March 8, 2004**

I hereby certify that the following attached paper(s) and/or fee

- 1. Response To Restriction Requirement (4 pages); and
- 2. Return postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ALBERT ISLES  
(Typed or printed name of person mailing papers(s) and/or fee)  
  
(Signature of person mailing paper(s) and/or fee)

Correspondence Address:  
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(212) 751-6849 Facsimile



PATENT

Docket No: 4428-4001

#4B  
3/8/04  
A.W.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Prashant Parikh and Stanley Peters  
Serial No. : 10/299,359                      Group Art Unit: 2175  
Filed : November 19, 2002                      Examiner : Wu, Yicun  
For : NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

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MAR 12 2004  
Technology Center 2100

**AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT**

This responds to the Restriction Requirement mailed on February 24, 2004.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2  
of this paper.

**Remarks** begin on page 4 of this paper.

LISTING OF CLAIMS

---

1. (original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:  
at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,  
identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and  
jumping to the at least one node.
  
2. (original) The method of claim 1 further comprising:  
providing a verbal description associated with the at least one node to the user.
  
- B. 3. (original) The method of claim 1 further comprising:  
searching a thesaurus correlating keywords with synonyms.
  
4. (original) The method of claim 3 wherein the searching further comprises:  
identifying the at least one word as synonymous with the at least one keyword.
  
5. (original) The method of claim 1 further comprising:  
determining that the at least one word is neither a keyword nor a synonym of any keyword; and  
learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords.

6. (original) The method of claim 5 further comprising:  
adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

B1

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

Claims 8-26 (canceled).

---

**PATENT**

**Docket No: 4428-4001**

**REMARKS**

In response to the 3-way Restriction Requirement mailed February 24, 2004, applicants respectfully provisionally elect the invention of Group I without traverse and without prejudice to continue prosecution of Groups II and III inventions in divisional applications

**AUTHORIZATION**

No extension of time is believed to be necessary for consideration of this Response. The Commissioner is authorized to charge any additional fees which may be required by this paper, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4428-4001.

**A DUPLICATE COPY OF THIS PAPER IS ENCLOSED.**

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

By:



Richard Straussman  
Registration No. 39,847

Dated: March 8, 2004

Mailing address:  
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UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/299,359	11/19/2002	Prashant Parikh	4428-4001	5023
	7590 02/24/2004		EXAMINER	
MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, NY 10154-0053			WU, YICUN	
			ART UNIT	PAPER NUMBER
			2175	3

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

J



<b>Office Action Summary</b>	<b>Application No.</b> 10/299,359	<b>Applicant(s)</b> PARIKH ET AL.	
	<b>Examiner</b> Yicun Wu	<b>Art Unit</b> 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on 14 January 2004.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) \_\_\_\_\_ is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) 1-26 are subject to restriction and/or election requirement.

DIANE D. MZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a)  All    b)  Some \*    c)  None of:
1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**III. DETAILED ACTION**

1. Claims 1-26 are presented for examination.

**Election/Restriction**

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-7 drawn to A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement, classified in class 707, subclass 3.

- II. Claims 8-20 drawn to A method performed in connection with an arrangement of nodes representable as a graph, classified in class 707, subclass 101.

- III. Claims 21-26 drawn to A method performed by a program executed by a processor to navigate among an arranged group of nodes, each of the nodes having an associated verbal description, classified in class 707, subclass 2.

3. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has

Art Unit: 2175

separate utility such as not directly connected to the first node but is associated with without requiring inverted index of invention II. See MPEP § 806.05 (d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as not directly connected to the first node but is associated with without requiring eliminating stop words and duplicates from the verbal descriptions to create a list of keywords of invention III. See MPEP § 806.05 (d).

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as inverted index without requiring eliminating stop words and duplicates from the verbal descriptions to create a list of keywords of invention III. See MPEP § 806.05 (d).

Art Unit: 2175

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Examiner attempted to contact Attorney Richard Straussman February 18, 2004 to request an oral election to the above restriction requirements, but did not result in an election being made because Attorney Straussman was unavailable.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yicun Wu whose telephone number is 703-305-4889. The examiner can normally be reached on 8:00 am to 4:30 pm, Monday -Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Yicun Wu  
Patent Examiner  
Technology Center 2100

~~DIANE S. WIZRAHI  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100~~

February 18, 2004

01-16-04

2186

Docket No. 4428-4001



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Prashant PARIKH, Stanley PETERS  
 Group Art Unit: 2186  
 Serial No.: 10/299,359  
 Examiner: To Be Assigned  
 Filed: November 19, 2002  
 For: NAVIGATION IN A HEIRARCHICAL STRUCTURED TRANSACTION  
 PROCESSING SYSTEM

EXPRESS MAIL CERTIFICATE

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 JAN 21 2004  
 Technology Center 2100

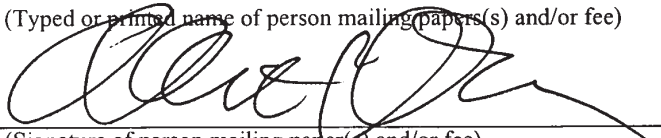
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Date of Deposit: January 14, 2004

I hereby certify that the following attached paper(s) and/or fee

1. Preliminary Amendment (9 pages);
2. Amendment Fee Transmittal (2 pages); and
3. Return receipt postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

ALBERT ISLES  
 (Typed or printed name of person mailing paper(s) and/or fee)  
  
 (Signature of person mailing paper(s) and/or fee)

Correspondence Address:  
 MORGAN & FINNEGAN, L.L.P.  
 345 Park Avenue  
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 (212) 758-4800 Telephone  
 (212) 751-6849 Facsimile



Docket No. 4428-4001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Prashant PARIKH, Stanley PETERS  
 Group Art Unit: 2186  
 Serial No.: 10/299,359  
 Examiner:  
 Filed: November 19, 2002

For: NAVIGATION IN A HEIRARCHICAL STRUCTURED TRANSACTION  
 PROCESSING SYSTEM

AMENDMENT FEE TRANSMITTAL

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 Technology Center 2100

Mail Stop Non-Fee Amendment  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

Transmitted herewith is an Amendment for the above-identified application.

- No additional fee is required.  
 The additional fee has been calculated as shown below:

CLAIMS AS AMENDED

	Claims Remaining After Amendment	Highest No. Covered by Previous Payments	Extra	Rate	Additional Fee
Total Claims*	26-	26	0	\$18.00/ \$9.00	\$ 0
Independent Claims	6-	6	0	\$86.00/ \$43.00	\$ 0
Multiple Dependent Claims	(If claims added by amendment include Multiple Dependent Claim(s) and there was no Multiple Dependent Claim(s) in application before amendment add \$290.00 to additional fee (\$145.00 for small entity).				\$ 0
<b>TOTAL</b>					<b>\$ 0</b>


\*Includes all independent and single dependent claims and all claims referred to in multiple dependent claims. See 37 C.F.R. §1.75(c).

- Small entity status is or has been claimed.  
Reduced Fees Under 37 C.F.R. §1.9(f) paid herewith \$
- \_\_\_\_\_ Pages Sequence Listing
- \_\_\_\_\_ Computer disk(s) containing substitute Sequence Listing
- Statement under 37 C.F.R. §1.825(b) that the computer and paper copies of the substitute Sequence Listing are the same.
- A check in the amount of \$ \_\_\_\_\_ to cover the filing fee is attached.
- Charge fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- The Commissioner is hereby authorized to charge any additional fees which may be required for filing this amendment, including all fees pursuant to 37 CFR §1.17 for its timely consideration, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: January 14, 2004

By: \_\_\_\_\_

  
Richard Straussman  
Registration No. 39,847

Correspondence Address:

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(212) 751-6849 Facsimile





Docket No. 4428-4001

#2A  
2/5/04  
AW.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Prashant PARIKH, Stanley PETERS  
Group Art Unit: 2186 2175  
Serial No.: 10/299,359  
Examiner: *Y. C. W. W.*  
Filed: November 19, 2002  
For: Navigation in a Heirarchical Structured Transaction Processing System

**PRELIMINARY AMENDMENT**

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Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Prior to examining this application on the merits please enter this Preliminary Amendment.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks/Arguments** begin on page 9 of this paper.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

---

SUB B17

1. (Original) A method performed in a system having multiple navigable nodes interconnected in a hierarchical arrangement comprising:
  - at a first node, receiving an input from a user of the system, the input containing at least one word identifiable with at least one keyword from among multiple keywords,
  - identifying at least one node, other than the first node, that is not directly connected to the first node but is associated with the at least one keyword, and
  - jumping to the at least one node.
2. (Original) The method of claim 1 further comprising:
  - providing a verbal description associated with the at least one node to the user.
3. (Original) The method of claim 1 further comprising:
  - searching a thesaurus correlating keywords with synonyms.
4. (Original) The method of claim 3 wherein the searching further comprises:
  - identifying the at least one word as synonymous with the at least one keyword.
5. (Original) The method of claim 1 further comprising:
  - determining that the at least one word is neither a keyword nor a synonym of any keyword; and

A1

learning a meaning for the word so that the word will be treated as a learned synonym for at least one particular keyword of the multiple keywords.

6. (Original) The method of claim 5 further comprising:

adding the word to a thesaurus so that, when the word is input by a subsequent user, the word will be treated as synonymous with the at least one particular keyword.

7. (Original) A method performed in connection with an arrangement of nodes representable as a hierarchical graph containing vertices and edges connecting at least two of the vertices, the method comprising:

receiving an input from a user as a response to a verbal description associated with a first vertex;

analyzing the input to identify a meaningful term that can be associated with at least one keyword;

selecting a vertex in the graph structure that is not connected by an edge to the first vertex, based upon an association between the meaningful term and the at least one keyword and a correlation between the at least one keyword and the vertex; and

jumping to the vertex.

8. (Currently Amended) A method performed in connection with an arrangement of nodes representable as a ~~hierarchical~~ graph comprising:

correlating keywords with nodes in which the keywords appear to create an inverted index so that the keywords each appear only once and all nodes containing each of the keywords are indexed to those keywords;

maintaining a thesaurus of synonyms for at least some of the keywords;  
receiving an input from a user containing a meaningful word;  
searching the inverted index to determine whether the meaningful word is a keyword and,  
if the meaningful word is a keyword, jumping to a node identified in the inverted index as  
correlated to that keyword, otherwise,  
searching the thesaurus to determine if the meaningful word is a synonym for at least one  
particular keyword and, if the meaningful word is the synonym, using the synonym to identify  
the at least one particular keyword, and  
jumping to at least one node correlated to the at least one particular keyword.

9. (Original) The method of claim 8 further comprising:

creating the thesaurus by analyzing at least two files and determining synonymy among  
application meaningful words contained therein based upon a frequency of co-occurrence among  
the application meaningful words.

10. (Currently Amended) A system comprising:

A  
a hierarchically arranged series of nodes;  
an inverted index correlating keywords with the nodes;  
a thesaurus correlating at least some keywords with synonyms for those keywords;  
a processor executable learning procedure configured to, upon receipt of a term that is  
identified as neither a synonym nor a keyword based upon a search of both the inverted index  
and the thesaurus,

(a) identify the term as at least one particular synonym for at least one particular keyword and

(b) correlate the term with the at least one particular keyword, so that when a subsequent user provides the term the system will operate as if the term was synonymous with the at least one particular keyword.

11. (Original) The system of claim 10 further comprising:  
a set of verbal descriptions for at least some of the nodes.
12. (Original) The system of claim 10 wherein at least one of the nodes is a service node.
13. (Currently Amended) ~~The system of claim 10 further comprising an interactive voice response system and wherein the hierarchically arranged series of nodes is part of the interactive voice response system.~~
14. (Currently Amended) The system of claim 10 wherein the ~~hierarchically arranged series~~ of nodes is part of a file system browser application.
15. (Currently Amended) The system of claim 10 wherein the ~~hierarchically arranged series~~ of nodes is part of a navigation system for television listings.
16. (Currently Amended) The system of claim 10 wherein the ~~hierarchically arranged series~~ of nodes is part of one of a document navigation or a document retrieval system.

AI

17. (Currently Amended) The system of claim 10 wherein the ~~hierarchically arranged~~ series of nodes is part of a geographic information system.

18. (Currently Amended) A transaction processing system, having a ~~hierarchical~~ an arrangement of nodes and configured to interact with a user so that the user can navigate among the nodes ~~in the hierarchy~~, the system comprising:

an inverted index correlating keywords with at least some of the nodes in the ~~hierarchical~~ arrangement so that when the user interacts with the system and provides an input in response to a verbal description from one node ~~in the hierarchy~~ and the response includes a meaningful word correlatable with a keyword, ~~the~~ system will identify at least one node that is correlated to the meaningful word by the inverted index and jump to that at least one node without first traversing any other node.

AI

19. (Original) The system of claim 18 further comprising:

a thesaurus correlating at least some of the keywords with synonyms for the at least some keywords.

20. (Original) The system of claim 18 further comprising:

at least one stored learned word correlated to a keyword.

21. (Currently Amended) A method performed by a program executed by a processor to navigate among a ~~hierarchically~~ an arranged group of nodes, each of the nodes having an associated verbal description, the method comprising:
- eliminating stop words and duplicates from the verbal descriptions to create a list of keywords;
  - creating a list of thesaurus words;
  - creating a first matrix comprising a correlation of at least some thesaurus words with at least some keywords;
  - creating a second matrix by calculating cosine values from a co-occurrence analysis of the entries in the first matrix;
  - determining a synonymy among the at least some thesaurus words and the at least some keywords; and
  - creating a thesaurus configured as an inverted index based upon the synonymy.
22. (Original) The method of claim 21 further comprising:
- tracking frequency of use of the nodes.
23. (Original) The method of claim 22 further comprising:
- ranking the nodes based upon a result of the tracking.
24. (Original) The method of claim 21 further comprising:
- pruning a node from the group of nodes based upon a frequency of usage criterion.

25. (Original) The method of claim 21 further comprising:  
adding a synonym entry into the thesaurus based upon a result of an unknown word  
analysis.

~~B~~

26. (Original) The method of claim 21 wherein the thesaurus further comprises at least some  
learned entries, the method further comprising:

deleting a learned entry based upon satisfaction of a frequency of use criterion.

A



**REMARKS**

The foregoing amendments are made to more clearly define that which the inventors consider to be the invention as opposed to a specific implementation thereof and are fully supported by the specification.

**AUTHORIZATION**

The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: January 14, 2004

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11/19/02  
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10299 27123

Docket No. **4428-4001**

Express Mail No. **EV062749235US**

11011 U.S. PTO  
10/299359  
11/19/02

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**UTILITY APPLICATION AND FEE TRANSMITTAL §(1.53(b))**

Commissioner for Patents  
**Box Patent Application**  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of

Inventor(s) names and addresses:

- (1) Prashant Parikh, 254 East 68th Street, Apartment 21D, New York, New York 10021  
Stanley Peters, 128 Hillside Avenue, Menlo Park, California 94025

Additional inventors are listed on a separate sheet

For: **NAVIGATION IN A HIERARCHICAL**  
**STRUCTURED TRANSACTION PROCESSING SYSTEM**

Enclosed Are:

- 147 page(s) of specification
- 1 page(s) of Abstract
- 7 page(s) of claims (numbered 1-26)
- 11 sheets of Formal Drawings, (FIGS. 16, 7A, 7B and 8-14)
- 9 page(s) of Declaration and Power of Attorney

- Unsigned
- Newly Executed**
- Copy from prior application
- Deletion of inventors including Signed Statement under 37 C.F.R. §1.63(d)(2)

**REQUEST AND CERTIFICATION UNDER 35 U.S.C. §122(b)(2)(B)(i) (form PTO/SB/35)**

As indicated on the attached Request and Certification, Applicant(s) certify that the invention disclosed in the attached application HAS NOT and WILL NOT be the subject of an application filed in another country, or under a multilateral agreement, that requires publication at eighteen months after filing. Applicant(s) therefore request(s) that the attached application NOT be published under 35 U.S.C. §122(b).

Docket No. 4428-4001

- Incorporation by Reference:
- The entire disclosure of the prior application, from which a copy of the combined Declaration and Power of Attorney is supplied herein, is considered as being part of the disclosure of the accompanying application and is incorporated herein by reference.
- Deletion of Inventors (37 C.F.R. §1.63(d) and §1.33(b))  
Signed statement attached deleting inventor(s) named in the prior application serial no. \_\_\_\_\_, filed \_\_\_\_\_.
- Microfiche Computer Program (Appendix)
- page(s) of Sequence Listing
- computer readable disk containing Sequence Listing
- Statement under 37 C.F.R. §1.821(f) that computer and paper copies of the Sequence Listing are the same
- Assignment Papers (assignment cover sheet and assignment documents)**
- A check in the amount of \$40.00 for recording the Assignment**
- Charge the Assignment Recordation Fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_.
- Assignment Papers filed in the parent provisional application Serial No. \_\_\_\_\_.
- Executed Associate Power of Attorney**
- Certification of chain of title pursuant to 37 C.F.R. §3.73(b)
- Priority is claimed under 35 U.S.C. §119 for:  
Application No(s). \_\_\_\_\_, filed \_\_\_\_\_, in \_\_\_\_\_ (country).
- Certified Copy of Priority Document(s) [\_\_\_\_\_]
- filed herewith
- filed in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
- English translation document(s) [\_\_\_\_\_]
- filed herewith
- filed in application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.
- Priority is claimed under 35 U.S.C. §119(e) for \_\_\_\_\_, filed \_\_\_\_\_.
- Information Disclosure Statement
- Copy of [\_\_\_\_\_] cited references
- PTO Form-1449
- References cited in parent application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.

**Docket No. 4428-4001**

- Related Case Statement under 37 C.F.R. §1.98(a)(2)(iii)
- A copy of related pending U.S. Application(s) Serial No(s): \_\_\_\_\_, filed \_\_\_\_\_, respectively, is attached hereto.
- A copy of related pending U.S. Application(s) entitled, \_\_\_\_\_, filed \_\_\_\_\_ to inventor(s) \_\_\_\_\_, respectively, is attached hereto.
- A copy of each related application(s) was submitted in parent application serial no. \_\_\_\_\_, filed \_\_\_\_\_.
- Preliminary Amendment
- Return receipt postcard (MPEP 503)**
- This is a  continuation  divisional  continuation-in-part of prior application serial no. \_\_\_\_\_, filed \_\_\_\_\_, to which priority under 35 U.S.C. §120 is claimed.
- Cancel in this application original claims \_\_\_\_\_ of the parent application before calculating the filing fee. (At least one original independent claim must be retained for filing purposes.)
- A Preliminary Amendment is enclosed. (Claims added by this Amendment have been properly numbered consecutively beginning with the number following the highest numbered original claim in the prior application).
- The status of the parent application is as follows:
- A Petition for Extension of Time and a Fee therefor has been or is being filed in the parent application to extend the term for action in the parent application until \_\_\_\_\_.
- A copy of the Petition for Extension of Time in the co-pending parent application is attached.
- No Petition for Extension of Time and Fee therefor are necessary in the co-pending parent application.
- Please abandon the parent application at a time while the parent application is pending or at a time when the petition for extension of time in that application is granted and while this application is pending has been granted a filing date, so as to make this application co-pending.
- Transfer the drawing(s) from the parent application to this application
- Amend the specification by inserting before the first line the sentence:  
This is  continuation  divisional  continuation-in-part of co-pending application Serial No. \_\_\_\_\_, filed \_\_\_\_\_.

Docket No. 4428-4001

I. CALCULATION OF APPLICATION FEE				
	Number Filed	Number Extra	Rate	Basic Fee \$740.00/370.00
Total Claims	26-20 =	6 x	\$18.00/ \$9.00	\$ 54.00
Independent Claims	6-3 =	3 x	\$84.00/ \$42.00	\$ 126.00
<input type="checkbox"/> Multiple Dependent Claims		If marked, add fee of \$270.00 (\$135.00)		\$0
<b>TOTAL:</b>				<b>\$550.00</b>

- Small entity status is or has been claimed. Reduced fees under 37 C.F.R. §1.9 (f) paid herewith \$550.00.
- A check in the amount of \$550.00 in payment of the application filing fees is attached.
- Charge fee to Deposit Account No. 13-4500, Order No. \_\_\_\_\_. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.
- The Commissioner is hereby authorized to charge any additional fees which may be required for filing this application pursuant to 37 CFR §1.16, including all extension of time fees pursuant to 37 C.F.R. § 1.17 for maintaining copendency with the parent application, or credit any overpayment to Deposit Account No. 13-4500, Order No. 4428-4001. A DUPLICATE COPY OF THIS SHEET IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.



By: \_\_\_\_\_  
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Dated: November 19, 2002

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11/19/02  
11131 U.S. PTO

11-20-02 10/299359-111902A

**Docket No. 4428-4001**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

11011 U.S. PTO  
10/299359  
11/19/02

**Applicant(s):** Prashant Parikh and Stanley Peters

**Serial No.:** To Be Assigned

**Filed:** Herewith

**For:** NAVIGATION IN A HIERARCHICAL  
STRUCTURED TRANSACTION PROCESSING SYSTEM

**EXPRESS MAIL CERTIFICATE**

Express Mail Label No.: **EV062749235US**

Date of Deposit: **November 19, 2002**

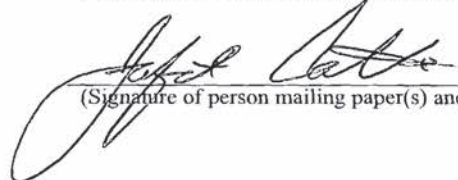
I hereby certify that the following attached paper(s) and/or fee

1. Utility Application and Application Fee Transmittal (in duplicate); enclosing Specification (147 pages), claims 1-26 (7 pages), abstract (1 page), 11 sheets of drawings (FIGS. 1-6, 7A, 7B and 8-14);
2. Executed Declaration And Power Of Attorney For Patent Application (9 pages);
3. Executed Associate Power of Attorney (1 page);
4. Recordation Form Cover Sheet (2 pages);
5. Executed Assignment (3 pages)
6. Checks in the amounts of \$550.00 and \$40.00; and
7. Return postcard.

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

JAFET COTTO

(Typed or printed name of person mailing papers(s) and/or fee)



(Signature of person mailing paper(s) and/or fee)

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**PATENT**  
**Docket No.: 4428-4001**

The United States  
Patent and Trademark Office

UNITED STATES  
PATENT APPLICATION  
FOR  
NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM

Inventor(s):

Prashant Parikh  
Stanley Peters

**PATENT**  
**Docket No.: 4428-4001**

**NAVIGATION IN A HIERARCHICAL STRUCTURED  
TRANSACTION PROCESSING SYSTEM**

**FIELD OF THE INVENTION**

The present invention relates to information processing and, more particularly, computer based transaction processing.

**NOTICE OF COPYRIGHT RIGHTS**

A portion of the disclosure of this patent document, particularly the Appendix, contains material that is protected by copyright. The copyright owner has no objection to the facsimile reproduction of the patent document or the patent disclosure as it appears in the Patent and Trademark Office file or records, but otherwise reserves all copyright rights whatsoever.

**BACKGROUND OF THE INVENTION**

In everyday life, networks of choices set forth in a particular order or hierarchy are encountered with increasing frequency. Usually, it is desired to traverse the network in the most efficient manner possible to accomplish a particular goal.

In modern mathematics, graph theory is used to study networks of hierarchical choices. The hierarchical networks can be represented as a graph structure. Graph theory finds practical applications in chemistry, computer science, economics, electronics and linguistics.

A graph structure is a collection of points, called "vertices", and a collection of lines, called "edges". Each edge joins a pair of vertices or a single point to itself.

A simple example of a network represented by a graph structure is a road map. The vertices represent towns or cities. The edges represent the roads that connect the towns and cities.



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Another type of network familiar to anyone who has a telephone is an automated telephone voice response system, such as commonly utilized by many large companies, to direct incoming calls to particular individuals or departments or to assist the caller in performing a transaction, such as making a purchase.

That type of telephone network can also be represented as a graph structure. When the system answers an incoming call, it transmits a verbal description or prompt to the caller: "If you would like to speak to Harry, press 1; if you would like to speak to Fred, press 2". (In general, we will use "verbal description" to mean a set of words relating to the subject matter whether presented audibly or in written form. The verbal descriptions may range from a few words to an entire document worth of text). A first vertex on the graph represents the initial prompt, which a caller hears upon reaching the telephone response system. If the user's response is pressing 1, calls are directed along a first edge to Harry, represented by a second vertex. If the response is pressing 2, the call is directed along a second edge to Fred, represented by a third vertex. Then, if the chosen person is not available, the caller is asked whether the caller wishes to leave a message. If the response is positive, the caller is directed along another edge to the selected person's voice mail, which would be represented by another vertex of the graph.

In general, whether for a telephone response network or for any other application representable by a graph structure, the caller or user of the system will have some goal. By "goal" we mean a combination of transactions and information accesses which the user seeks to accomplish. By "transaction" we mean an operation performed electronically with a user. In general, there will also be a combination of vertices or nodes in the graph that best represent or are closest to the goal the user is trying to accomplish. We call these vertices the "goal vertices".

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For the user, the object in navigating the graph is to get from the first vertex to the goal vertices. If this is not done as quickly and efficiently as possible the user may become frustrated and give up. Moreover, as the number of possible choices or nodes in the network becomes larger, the number of possible pathways between the first vertex and the goal vertices multiplies rapidly. Therefore, the ability to reach the goal vertex can become more difficult, require navigation of an excessive number of choices or nodes, or discourage a user before the goal vertex is even reached.

#### **SUMMARY OF THE INVENTION**

The present invention creates a method for navigating efficiently and naturally through a series of choices to obtain information, perform transactions, or accomplish some similar goal. The invention is implemented in a programmed computer that has a hierarchically configured decisional network that must be navigated as part of the processing and is constructed to accept inputs or data and process them in a manner that facilitates navigation of the network vertices more efficiently.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1 is an example graph representing a simple, generic hierarchically arranged transaction processing or decisional system suitable for use with the invention;

FIG. 2 is an example portion of a graph used to illustrate jumping among nodes in accordance with one variant of the invention;

FIG. 3 is an example portion of a graph in a simple interactive voice response ("IVR") system used to illustrate grouping in accordance with one variant of the invention;

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FIG. 4 is an example portion of a graph in a simple interactive television program listing used to illustrate another variant of the invention;

FIG. 5 is an example portion of a graph in a simple geographic information system used to illustrate a further variant of the invention;

FIG. 6 is an example portion of a graph for a simple automated voice response system used to illustrate a more complex variant of the invention;

FIGS. 7A, 7B, and 8-10 are collectively a flowchart illustrating an example setup process for use in accordance with an example implementation of one variant of the present invention; and

FIGS. 11-14 are collectively an overall flowchart illustrating an example process in accordance with a further variant of the present invention.

#### **DETAILED DESCRIPTION**

In graph theory, mathematicians refer to a “path” from one vertex in a graph to another specified vertex in the graph as consisting of a sequence of edges that connect the vertices between the first vertex and the final vertex. If the path contains an edge sequence that is “closed”, meaning that it loops back on itself, the path is called a “circuit” or a “cycle”. A graph structure is considered to be “connected” if there is at least one path connecting every pair of vertices.

Our invention is particularly applicable to transactional processing as applied to instances where graph theory can be used to represent the transactions as a set of options and when the options are structured according to a connected graph that contains no circuits. We call such a graph a “tree”. We use the term “menu tree” for a network that provides a “menu” of

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options, typically presented as verbal descriptions, to assist a user in making a series of choices through which he or she is able to accomplish one or more of his or her information access or transaction goals. Informally, a “menu tree” can be regarded as a series of vertices in a hierarchy or ordered pattern, arranged in rows of increasing numbers of vertices. More precisely, a “menu tree” can be represented as a “tree” in which (i) the vertices are all the options provided anywhere in the “menu tree”, plus a first vertex, (ii) every vertex except the first vertex, i.e., every “option vertex”, is associated with the verbal description (or such other means) by which a “menu” presents that option, (iii) an edge connects the first vertex to each vertex that the first “menu” presents to the user as an option, and (iv) each other vertex is similarly connected by edges to every other vertex that the corresponding “menu” presents to the user as an option. As the number of options increases, so does the length of paths from the first vertex to goal vertices.

In overview, in accordance with the teachings of our invention, the user can navigate the graph or tree in a way that allows them to skip from one vertex to another vertex that may be many rows down the graph or tree and/or where the vertices may not be connected together by an edge. This eliminates the necessity for making many choices.

Particular implementations make it possible to jump laterally from one vertex to another if the navigation enters a wrong branch of the tree or if the user changes his goal. The approach is accomplished through associating each vertex with a verbal description (or prompt), and matching words in users' requests and responses with these verbal descriptions to enable the selection of vertices that may not be directly connected to the user's current location in the graph or tree by an edge.

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In some variants, we create a system with the unique ability to learn by incorporating previously unknown words, keyword or synonyms of keywords so that the system modifies itself to thereby increase the likelihood that a user will efficiently and quickly reach the goal.

For purposes of illustration, the invention will be described by way of example, first using a series of simple examples followed by a more complex example of a more detailed and commercially suitable example variant, in the context of a menu-type automated telephone voice response system for a publication, a hierarchical network of the type that is frequently encountered and easily understood that implements a combination of some of the features of the simple examples in order to illustrate how those features can be combined or overlaid.

It should be understood that the present invention is applicable to a wide range of different networks, which can be mathematically represented by graph structures consisting of vertices and edges and should not be considered to be limited to the particular application described. Representative examples of suitable applications for the invention include implementing an enhanced and more efficient "Find" function or file system browser for personal computer operating systems, a navigation system for television program listing, document management or retrieval systems, a "geographic information system" in an automobile that allows location of addresses or business(es) meeting certain criteria, or other devices that incorporate some hierarchical navigation aspect as part of its operation.

In order to more fully understand the invention, various independent aspects are now presented below by way of simple illustrative examples. In this manner the teachings of the invention can be understood in a way that makes it possible to use, overlay and/or combine those aspects in a beneficial manner in an implementation of the invention. Depending upon the