

PACE DATA ENTRY CODING SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

1ST EXAMINER *Chen* DATE 5-17-95
2ND EXAMINER 440 DATE 7-6-95

APPLICATION NUMBER **425160** TYPE APPL 1 FILING DATE MONTH 04 DAY 11 YEAR 95 SPECIAL HANDLING 0 CLASS 395 SHEETS OF DRAWING 24

TOTAL CLAIMS ~~11~~ INDEPENDENT CLAIMS ~~1~~ SMALL ENTITY? 2 FOREIGN LICENSE Y ATTORNEY DOCKET NUMBER 213987

102 - 10 CONTINUITY DATA

CONT STATUS CODE	CODE	PARENT APPLICATION SERIAL NUMBER	PCT APPLICATION SERIAL NUMBER	PARENT PATENT NUMBER	PARENT FILING DATE MONTH DAY YEAR
P	C	/	/		
P	C	/	/		
P	C	/	/		
P	C	/	/		
P	C	/	/		

PCT/FOREIGN APPLICATION DATA

FOREIGN PRIORITY CLAIMED	COUNTRY CODE	PCT/FOREIGN APPLICATION SERIAL NUMBER	FOREIGN FILING DATE MONTH DAY YEAR

CODE SHEET FOR CONTINUING DATA

Line	Code	Serial No.	Filing Date	Status	Document No.	Issue Date
104	71	08/425,160	4/11/95	03		
105						
106						
107						
108						
109						
110						
111						
112						
113						
114						
115						
116						
117						

Condition and Status Codes for Continuing Data

CONDITION CODE

- 71 Continuation of application No.
- 81 which is a continuation of application No.
- 91 and a continuation of application No.

- 72 Continuation-in-part of application No.
- 82 which is a continuation-in-part of application No.
- 75 and a continuation-in-part of application No.

- 74 Division of application No.
- 84 which is a division of application No.
- 76 and a division of application No.

- 86 , said application No.
- 89 Application No.
- 90 and application No.
- 92 each

- 65 filed as application No.
- 66 Substitute for application No.
- 68 Provisional application No.

STATUS CODE

- 01 Patent No.
- 03 abandoned
- 04 SIR No.

NOTE I: When the codes 86 and 92 are used, they must be followed by 81, 82 or 84 -- conditions beginning with "which is"

NOTE II: Codes 71, 72 and 74 may be used only on the first line; one of them must be used on the first line in regular continuing data. 66 or 68 may be used on the first line in Substitute or Provisional cases. Remember, however, that if there is a Provisional and other continuing data, the Provisional is always listed last.

**MULTIPLE DEPENDENT CLAIM
FEE CALCULATION SHEET
(FOR USE WITH FORM PTO-875)**

SERIAL NO.

423

FILING DATE

160

APPLICANT(S)

CLAIMS

	AS FILED		AFTER 1st AMENDMENT		AFTER 2nd AMENDMENT		*	*		*	
	IND.	DEP.	IND.	DEP.	IND.	DEP.		IND.	DEP.	IND.	DEP.
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49	1										
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TOTAL IND.	10										
TOTAL DEP.	67										
TOTAL CLAIMS	77										
51	1										
52											
53		28									
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99											
100											
TOTAL IND.	1										
TOTAL DEP.	24										
TOTAL CLAIMS	25										

PTO-1360 (3-78)

*MAY BE USED FOR ADDITIONAL CLAIMS OR AMENDMENTS

U.S. DEPARTMENT of COMMERCE
Patent and Trademark Office

PATENT APPLICATION FEE DETERMINATION RECORD
Effective October 1, 1994

Application or Docket Number

1175160

CLAIMS AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	102 minus 20 = *	82
INDEPENDENT CLAIMS	10 minus 3 = *	7
MULTIPLE DEPENDENT CLAIM PRESENT <input checked="" type="checkbox"/>		

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	FEE		RATE	FEE
	365.00	OR		730.00
x\$11=	902	OR	x\$22=	1804
x38=	266	OR	x76=	582
+120=	120	OR	+240=	210
TOTAL	1653	OR	TOTAL	1803

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

CLAIMS AS AMENDED - PART II

AMENDMENT A	(Column 1)	(Column 2)	(Column 3)	(Column 4)
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
Total	*	Minus	**	=
Independent	*	Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x38=		OR	x76=	
+120=		OR	+240=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT B	(Column 1)	(Column 2)	(Column 3)	(Column 4)
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
Total	*	Minus	**	=
Independent	*	Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x38=		OR	x76=	
+120=		OR	+240=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

AMENDMENT C	(Column 1)	(Column 2)	(Column 3)	(Column 4)
	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
Total	*	Minus	**	=
Independent	*	Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				

SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
x\$11=		OR	x\$22=	
x38=		OR	x76=	
+120=		OR	+240=	
TOTAL ADDIT. FEE		OR	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.



UNITED STATES DEPARTMENT OF COMMERCE
 Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

Handwritten: #2 / 1/19/95

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
--------------------	-------------	-----------------------	------------------------

08/425,160 04/11/95 FARBER D 213987

0252/0524

DALE S LAZAR
 CUSHMAN DARBY AND CUSHMAN
 1100 NEW YORK AVENUE NW
 NINTH FLOOR EAST TOWER
 WASHINGTON DC 20005-3918

DATE MAILED: 0000

**NOTICE TO FILE MISSING PARTS OF APPLICATION
 FILING DATE GRANTED** 05/24/95

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted **ALONG WITH THE PAYMENT OF A SURCHARGE** for items 1 and 3-6 only of \$ 130 for large entities or \$ 65 for small entities who have filed a verified statement claiming such status. The surcharge is set forth in 37 CFR 1.16(e).

If all required items on this form are filed within the period set below, the total amount owed by applicant as a large entity, small entity (verified statement filed), is \$ 3436.00

Applicant is given **ONE MONTH FROM THE DATE OF THIS LETTER, OR TWO MONTHS FROM THE FILING DATE** of this application, **WHICHEVER IS LATER**, within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

1. The statutory basic filing fee is: missing insufficient. Applicant as a large entity small entity, must submit \$ 130 to complete the basic filing fee.
2. Additional claim fees of \$ 2576 as a large entity, small entity, including any required multiple dependent claim fee, are required. Applicant must submit the additional claim fees or cancel the additional claims for which fees are due.
3. The oath or declaration:
 - is missing.
 - does not cover the newly submitted items.

An oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date is required.
4. The oath or declaration does not identify the application to which it applies. An oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
5. The signature(s) to the oath or declaration is/are: missing; by a person other than the inventor or a person qualified under 37 CFR 1.42, 1.43, or 1.47. A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
6. The signature of the following joint inventor(s) is missing from the oath or declaration:

_____ An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.
7. The application was filed in a language other than English. Applicant must file a verified English translation of the application and a fee of \$ _____ under 37 CFR 1.17(k), unless this fee has already been paid.
8. A \$ _____ processing fee is required since your check was returned without payment. (37 CFR 1.21(m)).
9. Your filing receipt was mailed in error because your check was returned without payment.
10. The application does not comply with the Sequence Rules. See attached Notice to Comply with Sequence Rules 37 CFR 1.821-1.825.
11. Other.

Direct the response to Box Missing Part and refer any questions to the Customer Service Center at (703) 308-1202.

A copy of this notice MUST be returned with th GOOG-1015-Page 136 of 335



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
FILING COMPLETION UNDER RULE 53(d)/60(d) (Do NOT use for PCT Applications)
For Design or Utility Applications

365-201
65-205
891-203
304-202
120-204
Page 1 of 2
Attn: Application Division

A
N

In re PATENT APPLICATION of
Inventor(s): FARBER ET AL.

* * * * *
* COMPLETION *
* under *
* Rule 53(d), 60(d) *
* or 62(d) *
* * * * *

(Our Deposit Account No. 03-3975
(Our Order No. 7018 / 213987
C# / M#
Atty. Dkt. 213987 /
M# / Client Ref.

Appln. No.: 08 / 425,160
series code ↑ / ↑ serial no.
Filed: April 11, 1995

Title: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM

Date: June 23, 1995

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

#3

Sir:

In reply to the Notice to File Missing Parts (copy attached), the following completes the filing under Rule 53(d)/60(d)/62(d) of the above-identified patent application:

- 1. Signed Declaration attached. Original Facsimile/Copy
- 2. Attached: Original signed Declaration with attached specification (including claim(s)) which is a copy of specification and claim(s) originally filed to secure the above filing date.
- 3. The original application as filed in the PTO on the above filing date is the application which each inventor executed by signing the attached Rule 63 Declaration.
- 4. Specification originally filed in non-English language; hence verified translation attached of:
 - a. Abstract
 - b. _____ pgs. of Specification (only spec. & claims)
 - c. Drawing Figs _____

\$27.00 REFUND SCHEDULED
JUL 28 1995

- 5. Letter filing formal drawing attached.
- 6. Attached is an Assignment and Cover Sheet.

Please return the recorded assignment to the undersigned.

By Treasury Clerk in approximately ten (10) days from above date.
CHIEF ACCOUNTING OFFICER
PATENT TRADEMARK OFFICE

7. Priority is claimed under 35 U.S.C. 119/365 based on filing in (country) _____

Application No.	Filing Date	Application No.	Filing Date
(1) _____	_____	(4) _____	_____
(2) _____	_____	(5) _____	_____
(3) _____	_____	(6) _____	_____

8. _____ (No.) Certified copy/copies attached; previously filed (date) _____

9. _____ in U.S. Application No., _____ / _____, filed _____
series code ↑ ↑ serial no.

- 10. Attached: 1 (No.) Statement(s) establishing "small entity" status under Rules 9 & 27.
090 BA 06/26/95 08425160 1 201 365.00 CK
- 11. Attached:
090 BA 06/26/95 08425160 1 202 304.00 CK
090 BA 06/26/95 08425160 1 203 891.00 CK
090 BA 06/26/95 08425160 1 201 120.00 CK
1 205 45.00 CK

12. [] - Preliminary amendment:

Page 2 of 2
Completion Under Rule 53(d)
60(d)
or 62(d)

THE FOLLOWING FILING FEE IS BASED ON CLAIMS AS FILED LESS ANY ABOVE CANCELLED

	<u>Large/Small Entity</u>	<u>Fee Code</u>
13. Basic Filing Fee - - - - - Design Appln. \$300/\$150	\$ _____	(108/208)
14. Basic Filing Fee - - - - - <u>Not</u> Design Appln. \$730/\$365	\$ <u>365.00</u>	(101/201)
15. Total Effective Claims <u>101</u> minus 20 = * <u>81</u> x \$22/\$11 (Base this † on claims <u>as amended</u> to effect CIP <u>if</u> this is a Rule 62(d) completion)	\$ <u>891.00</u>	(103/203)
16. Independent Claims <u>11</u> minus 3 = * <u>8</u> x \$76/\$38 *If answer is less than zero, enter "0"	\$ <u>304.00</u>	(102/202)
17. If <u>any proper</u> (ignore improper) multiple dependent claim is present, <u>add</u> \$240/\$120 + (Leave line 16 <u>blank</u> if this is a <u>reissue</u> application)	\$ <u>120.00</u>	(104/204)
18. Surcharge for filing Declaration/filing fee late - - - - - \$130/\$65 +	<u>65.00</u>	(105/205)
19.	FILING FEE	\$ <u>1745.00</u>
20. Original due date: <u>June 24, 1995</u>		
21. Petition is hereby made for an extension to cover the date this response is filed for which the requisite fee is enclosed (Lg/Sm Entity: <u>1 month \$110/\$55</u> (code 115/215); <u>2 months \$370/\$185</u> (code 116/216); <u>3 months \$870/\$435</u> (code 117/217); <u>4 months \$1,360/\$680</u> (code 118/218)):	+ <u>0</u>	
22.	TOTAL	\$ <u>1745.00</u>
23. If "non-English" box 4 is X'd, <u>add</u> Rule 17(k) processing fee (\$130.00) - - - - -	+ _____	(139)
24. If "assignment" box 6 is X'd, <u>add</u> recording fee (\$40.00) - - - - -	+ <u>40.00</u>	(581)
25. [] Attached is a Rule 47 Petition and Petition fee (<u>add</u> \$130.00 per Rule 17(h)) - - -	+ _____	(122)
26.	TOTAL FEE ATTACHED	\$ <u>1785.00</u>
27. CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (<u>missing or insufficiencies only</u>) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our <u>Account/Order Nos. shown in the heading hereof</u> for which purpose a <u>duplicate</u> copy of this sheet is attached. <u>This statement does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.</u>		

1100 New York Avenue, N.W.
Ninth Floor, East Tower
Washington, D.C. 20005-3918
Tel: (202) 861-3000

CUSHMAN DARBY & CUSHMAN, L.L.P.

By Atty: Dale S. Lazar Reg. No. 28,872

Sig:  Fax: (202) 822-0944
Tel.: (202) 861-3527

Atty/Sec:DSL/BXS:cjl

NOTE: File in duplicate with post card receipt (CDC-103) and attachments.

Inventor(s): David A. Farber and Ronald D. Lachman
 Appin. No.: 08 / 425,160 or Patent No. _____
 Filed: April 11, 1995 or Issued: _____
 Title: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM



Inv. Dkt. 13987 /
 No. / Client Ref. _____

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(d) and 1.27(c)) - **SMALL BUSINESS CONCERN**

I hereby declare that I am

- the owner of the small business concern identified below:
- an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN KINETECH INC.
 ADDRESS OF CONCERN 202N Carillo Rd., Ojai, California 93023 DE 6/7/95
3140 whisperwoods Ct., Northbrook Illinois 60062

6/15/95

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.12, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM

by Inventor(s) David A. FARBER and Ronald D. LACHMAN described in

- X -> the Specification filed herewith,
- one -> Application No. 08 / 425,160, filed April 11, 1995,
- box -> Patent No. _____, issued _____.

If the rights held by the above identified small business concern are not exclusive, each small entity individual, concern or organization having rights to the invention is listed in (A) and (B) below and no rights to the invention are held by any person, other than the inventor, who could not qualify under 37 CFR 1.9(c) as an independent inventor if that person had made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

(A) FULL NAME of assignee/licensee/grantee/conveyee* _____

ADDRESS _____

X proper box: INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

(B) FULL NAME of assignee/licensee/grantee/conveyee* _____

ADDRESS _____

X proper box: INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

*NOTE: Separate verified statement is required from each person, concern or organization named in (A) and (B) above having rights to the invention, averring to his/her/its status as a small entity. (37 CFR 1.27)

I acknowledge the duty to file, in this case, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING Ronald Lachman
 TITLE OF PERSON OTHER THAN OWNER _____
 ADDRESS OF PERSON SIGNING 3140 WHISPERWOODS CT
NORTHBROOK IL 60062

SIGNATURE [Signature] DATE 6-14-95



FOR UTILITY/DESIGN
OR PCT NATIONAL/PLANT
ORIGINAL/SUBSTITUTE/SUPPLEMENTAL
DECLARATIONS

RULE 63 (37 C.F.R. 1.63)
DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION
THE UNITED STATES PATENT AND TRADEMARK OFFICE

CUSHMAN
FORM

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the INVENTION ENTITLED

IDENTIFYING DATA IN A DATA PROCESSING SYSTEM
the specification of which (CHECK applicable BOX(ES))
-> [] is attached hereto.
X -> [x] was filed on April 11, 1995 as U.S. Application No. 08/425,160
BOX(ES) -> [] was filed as PCT International Application No. PCT/ / / on / / /
-> and (if applicable to U.S. or PCT application) was amended on / / /

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56. I hereby claim foreign priority benefits under 35 U.S.C. 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate filed by me or my assignee disclosing the subject matter claimed in this application and having a filing date (1) before that of the application on which priority is claimed, or (2) if no priority claimed, before the filing date of this application:

PRIOR FOREIGN APPLICATION(S)		Date first Laid-	Date Patented	Priority Claimed	
Number	Country	Day/MONTH/Year Filed	open or Published	or Granted	Yes No

I hereby claim the benefit under 35 U.S.C. 120/365 of all United States applications listed below and PCT international applications listed above or below and, if this is a continuation-in-part (CIP) application, insofar as the subject matter disclosed and claimed in this application is in addition to that disclosed in such prior applications, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in 37 C.F.R. 1.56 which became available between the filing date of each such prior application and the national or PCT international filing date of this application:

PRIOR U.S. OR PCT APPLICATION(S)	Status	
Application No. (series code/serial no.)	Day/MONTH/Year Filed	pending, abandoned, patented

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And I hereby appoint Cushman Darby & Cushman, L.L.P. 1100 New York Avenue, N.W., Ninth Floor, East Tower Washington, D.C. 20005-3918, telephone number 861-3000 (to whom all communications are to be directed), and the below-named persons (of the same address) individually and collectively my attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith and with the resulting patent, and I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/ organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Cushman, Darby & Cushman in writing to the contrary.

29 Paul N. Kokulis	16773	Edward M. Prince	22429	Dale S. Lazar	28872	Michelle N. Lester	32331
Raymond F. Lippitt	17519	Donald B. Deaver	23048	Glenn J. Perry	28458	Jeffrey A. Simenauer	31933
G. Lloyd Knight	17698	David W. Brinkman	20817	Kendrew H. Colton	30368	Robert A. Molan	29834
Carl G. Love	18781	George M. Sirilla	18221	Chris Comuntzis	31097	G. Paul Edgell	24238
Edgar H. Martin	20534	Donald J. Bird	25323	Wallace G. Walter	27843	Lynn E. Eccleston	35861
William K. West, Jr.	22057	W. Warren Taltavull	25647	Lawrence Harbin	27644	Frederick S. Frei	27105
Kevin E. Joyce	20508	Reter W. Gowdey	25872	Paul E. White, Jr.	32011	David A. Jakopin	32995
						Mark G. Fanson	30793

1. INVENTOR'S SIGNATURE: David Farber Date 6/13/95
 Inventor's Name (typed) David Farber First Middle Initial DA Family Name FARBER Country of Citizenship U.S.A.
 Residence (City) Ojai (State/Foreign Country) CA CA
 Post Office Address (Include Zip Code) 2201 Canite Rd, Ojai, CA 93023

2. INVENTOR'S SIGNATURE: Ronald Lachman Date 6/13/95
 Inventor's Name (typed) Ronald Lachman First Middle Initial RL Family Name LACHMAN Country of Citizenship U.S.A.
 Residence (City) Northbrook (State/Foreign Country) IL IL
 Post Office Address (Include Zip Code) 3140 Whisperwoods Court, Northbrook, IL 60062

3. INVENTOR'S SIGNATURE: _____ Date _____
 Inventor's Name (typed) _____ First Middle Initial _____ Family Name _____ Country of Citizenship _____
 Residence (City) _____ (State/Foreign Country) _____
 Post Office Address (Include Zip Code) _____

(FOR ADDITIONAL INVENTORS, check box [] and attach sheet (CDC-116.2) for same information for each re signature, name, date, citizenship, residence and address.)

Rule 56(a) & (b) = 37 C.F.R. 1.56(a) & (b)
PATENT AND TRADEMARK CASES - RULES OF PRACTICE
DUTY OF DISCLOSURE

- (a) ... Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the [Patent and Trademark] Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability... (b) information is material to patentability when it is not cumulative and (1) It also establishes by itself, or in combination with other information, a prima facie case of unpatentability of a claim or (2) refers, or is inconsistent with, a position the applicant takes in: (i) Opposing an argument of unpatentability relied on by the Office, or (ii) Asserting an argument of patentability.

PATENT LAWS 35 U.S.C.

§102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless--

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent or
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months* before the filing of the application in the United States, or
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or
- (f) he did not himself invent the subject matter sought to be patented, or
- (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

§103. Condition for patentability; non-obvious subject matter

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 said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. Subject matter developed by another person, which qualified as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

* Six months for Design Applications (35 U.S.C. 172).



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#4 John
4-23-96

In re PATENT APPLICATION of:

FARBER, et al

Group Art Unit: Unknown

Appln. No. Unknown

Examiner: Unknown

Filed: April 11, 1995

For: IDENTIFYING DATA IN A DATA
PROCESSING SYSTEM

April 11, 1995

* * * *

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Attached is a Form PTO-1449 listing the enclosed documents.

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully.

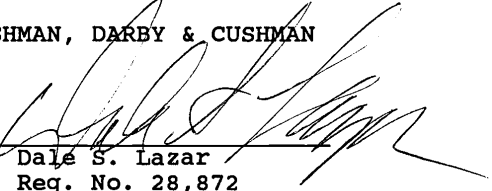
Consideration of the foregoing and enclosures plus the return of a copy of the herewith Form PTO-1449 with the Examiner's initials in the left column per MPEP 609 along with an

FARBER et al Application

early action on the merits of this application are earnestly solicited.

Respectfully submitted,
CUSHMAN, DARBY & CUSHMAN

By



Dale S. Lazar
Reg. No. 28,872
Tel: (202) 861-3527
Fax: (202) 822-0944

DSL:BXS:pgd
1100 New York Avenue, N.W.
Ninth Floor
Washington, D.C. 20005-3918
(202) 861-3000

Form PTO-1449
(REV. 2-83)

Cushman Version

U.S. Dept. of Commerce
Patent and Trademark Office

DATE: APRIL 11, 1995

Sheet 1 of 1

ATTY. D. NO. 213987 /

#4 / Client Ref.

GROUP ART UNIT
2771
UNKNOWN

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)



APPLICANT (inventor(s))
FARBER, et al

EXAMINER *Homere J*
UNKNOWN

APPL. NO. 08/960079

FILING DATE
APRIL 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
JRH	AR 4 888811	12/1989	BARNES ET AL	364	200	
JRH	BR 4 972367	11/1990	BURKE	364	900	
JRH	CR 5 050212	9/1991	DYSON	380	25	
JRH	DR 5 202982	4/1993	GRAMLICH ET AL	395	600	
JRH	ER 5 208858	5/1993	VOLLERT ET AL	380	43	
JRH	FR 5 301316	5/1994	HAMILTON ET AL	395	600	
JRH	GR 5 343527	8/1994	MOORE	380	4	
HR						
IR						
JR						
KR						
LR						
MR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
				Enclosed	No			Enclosed	No
NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR	Advances in Cryptology-EUROCRYPT '93, Workshop on the Theory and Application of Cryptographic Techniques Lofthus, Norway, May 23-27, 1993 Proceedings .
JRH	UR	Proceedings of the 1993 ACM SIGMOD International Conference on Management of Data, Volume 22, Issue 2, June 1993 .
JRH	VR	Advances in Cryptology-AUSCRYPT '92 - Workshop on the Theory and Application of Cryptographic Techniques Gold Coast, Queensland, Australia December 13-16, 1992 Proceedings .

EXAMINER

Jean R. Homere

DATE CONSIDERED

05/30/96

*EXAMINER: Initial if citation 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.



23...

10-6-95 020

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

re PATENT APPLICATION of:

FARBER, et al

Group Art Unit: 2317

Appln. No. 08/425,160

Examiner: Unknown

Filed: April 11, 1995

For: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM

January 24, 1996

* * * *

STATUS REQUEST

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

FEB 1 1996
GROUP 2300

Sir:

Please inform the undersigned of the status of the above-identified application.

Please note the current address of the undersigned:

CUSHMAN DARBY & CUSHMAN, LLP
1100 New York Avenue, N.W.
Ninth Floor
Washington, D.C. 20005-3918
(202) 861-3000

Respectfully submitted,

CUSHMAN, DARBY & CUSHMAN

By

Dale S. Lazar
Dale S. Lazar
Reg. No. 28,872
Tel: (202) 861-3527
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Washington, D.C. 20005-3918
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08/425/160



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

097498, 100 04/11/96 FARESE

0 215987

EXAMINER

FORM 70001

EXAMINEE 6

ART UNIT

PAPER NUMBER

GISHMAN DORRY AND GISHMAN
1180 NEW YORK AVENUE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-0909

DATE MAILED:

06/04/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on _____ This action is made final.

A shortened statutory period for response to this action is set to expire 1 month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- Notice of References Cited by Examiner, PTO-892.
- Notice of Draftsman's Patent Drawing Review, PTO-948.
- Notice of Art Cited by Applicant, PTO-1449.
- Notice of Informal Patent Application, PTO-152.
- Information on How to Effect Drawing Changes, PTO-1474.
- _____

Part II SUMMARY OF ACTION

- Claims 1-53 are pending in the application.
Of the above, claims None are withdrawn from consideration.
- Claims _____ have been cancelled.
- Claims _____ are allowed.
- Claims _____ are rejected.
- Claims _____ are objected to.
- Claims 1-53 are subject to restriction or election requirement.
- This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- Formal drawings are required in response to this Office action.
- The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
- The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
- Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.
- Since this application appears to be 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.
- Other

EXAMINER'S ACTION

Serial Number: 08/425,160
Art Unit: 2307

-2-

Part III DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Group I. Claims 1-³²~~29~~, 35, 38-4~~5~~ are drawn to the determination of unique identifiers and corresponding data item, classified in Class 395, subclass 741.

Group II. Claims 33-34, 36-37, 51-53 are drawn to the duplication of unique identifiers and corresponding data item, classified in Class 395, subclass 182.04.

Group III. Claims 46-48 are drawn to the deletion of unassigned data items, classified in Class 395, subclass 469.

Group IV. Claims 49-50 are drawn to the synchronization of data items after changes have been made to said data items, classified in Class 395, subclass 839.

2. The inventions are distinct, each from the other because of the following reasons:

Serial Number: 08/425,160
Art Unit: 2307

-3-

1. Inventions I, II, III and IV are related as sub-combinations disclosed as usable together in a single combination. The sub-combinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as determining the existence of identifiers and corresponding data items, while inventions II, III, and IV are useable for respectively duplicating, deleting and updating data items in a data processing system. See M.P.E.P. § 806.05(d).

2. 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.

3. These inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II III and IV, restriction for examination purposes as indicated is proper.

4. A telephone call was made to Mr. Dale S. Lazar, reg. no.28,872 on 05/30/96 to request an oral election to the above restriction requirement, but did not result in an election being made.

Serial Number: 08/425,160
Art Unit: 2307

-4-

Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 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 diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean R. Homere whose telephone number is (703)-308-6647. The examiner can normally be reached on Monday-Friday from 08:30 a.m.-5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black, can be reached on (703)-305-9707. The facsimile phone number for this group is (703) 305-9564 or 9565.

Serial Number: 08/425,160
Art Unit: 2307

-5-

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

James G. [Signature]
JAMES G. [Name]
SUPERVISOR



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

3108
7
V. B. S.
6-17-96

In re PATENT APPLICATION of:

FARBER, et al 08 425,160

Group Art Unit: Unknown

Appln. No. Unknown

Examiner: Unknown

Filed: April 11, 1995

For: IDENTIFYING DATA IN A DATA
PROCESSING SYSTEM

August 2, 1995

* * * *

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Attached is a Form PTO-1449 listing the enclosed documents.

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully.

Consideration of the foregoing and enclosures plus the return of a copy of the herewith Form PTO-1449 with the Examiner's initials in the left column per MPEP 609 along with an

FARBER et al Application

early action on the merits of this application are earnestly solicited.

Respectfully submitted,

CUSHMAN, DARBY & CUSHMAN

By

Dale S. Lazar #20528
Dale S. Lazar
Reg. No. 28,872
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Fax: (202) 822-0944

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Washington, D.C. 20005-3918
(202) 861-3000

DATE: August 2, 1995

Sheet 1 of 5

#7

Form PTO-1449
(REV. 2-83)

Cushman Version

U.S. Dept. of Commerce
Patent and Trademark Office

ATTY. DOCKET NO.
213987 /

GROUP ART UNIT

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT
(Use several sheets if necessary)

APPLICANT (inventor(s))
FARBER, et al

UNKNOWN 2771

EXAMINER Homer
UNKNOWN

APPLN. NO.
08 / 425,160 960079

FILING DATE
APRIL 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
JRH	AR 3 6 6 8 6 4 7	6/1992	EVANGELISTI ET AL	340	172.5	
JRH	BR 4 2 1 5 4 0 2	7/1980	MITCHELL ET AL	364	200	
JRH	CR 4 2 9 0 1 0 5	9/1981	CICHELLI ET AL	364	200	
JRH	DR 4 3 7 6 2 9 3	3/1983	RIVEST	364	900	
JRH	ER 4 4 0 5 8 2 9	9/1983	RIVEST ET AL	178	22.1	
JRH	FR 4 4 1 2 2 8 5	10/1983	NECHES ET AL	364	200	
JRH	GR 4 4 1 4 6 2 4	11/1983	SUMMER, JR. ET AL	364	200	
JRH	HR 4 4 4 1 1 5 5	4/1984	FLETCHER ET AL	364	200	
JRH	IR 4 4 6 4 7 1 3	8/1984	BENHASE ET AL	364	200	
JRH	JR 4 5 7 7 2 9 3	3/1986	MATICK ET AL	365	189	
JRH	KR 4 6 4 2 7 9 3	2/1987	MEADEN	364	900	
JRH	LR 4 6 9 1 2 9 9	9/1987	RIVEST ET AL	365	185	
JRH	MR 4 7 2 5 9 4 5	2/1988	KRONSTADT ET AL	364	200	

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
				Enclosed	No			Enclosed	No
NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR 1	Witold Litwin et al, Linear Hashing for Distributed Files, ACM SIGMOD, May, 1993 pp. 327-336.
JRH	2UR	Ming-Ling Lo, et al, ON OPTIMAL PROCESSOR ALLOCATION TO SUPPORT PIPELINED HASH JOINS, ACM SIGMOD, pp. 69-78, 5/93.
JRH	3VR	Thomas A. Berson, Differential Cryptanalysis Mod 2 ³² with Applications to MD5, pp. 69-81, 1992.

EXAMINER

Jean R. Homere

DATE CONSIDERED

9/4/96

*EXAMINER: Initial if citation 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.

DATE: August 2, 1995

Sheet 2 of 3

ATTY. DOC. NO. 213987 /

M# / Client Ref.

GROUP ART UNIT

UNKNOWN 277

EXAMINER *Homere*
UNKNOWN

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT
(Use several sheets if necessary)

APPLICANT (inventor(s))
FARBER, et al

APPLN. NO. 08 4425,160 *9 960079*

FILING DATE
APRIL 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
JRH	AR 4 7 7 3 0 3 9	9/1988	ZAMORA	364	900	
JRH	BR 4 8 8 7 2 3 5	12/1989	HOLLOWAY ET AL	364	900	
JRH	CR 4 8 8 8 6 8 1	12/1989	BARNES ET AL	364	200	
JRH	DR 4 4 9 0 7 8 2	12/1984	DIXON ET AL	364	200	
JRH	ER 4 9 7 2 3 6 7	11/1990	BURKE	364	900	
JRH	FR 4 9 2 2 4 1 4	5/1990	HOLLOWAY ET AL	364	200	
JRH	GR 5 0 5 7 8 3 7	10/1991	COLWELL ET AL	341	55	
JRH	HR 5 0 0 7 6 5 8	12/1991	BENDERT ET AL	395	600	
JRH	IR 5 0 2 5 4 2 1	6/1991	CHO	365	230.05	
JRH	JR 5 1 2 9 0 8 1	7/1992	KOBAYASHI ET AL	395	600	
JRH	KR 5 1 2 9 0 8 2	7/1992	TIRFING ET AL	395	600	
JRH	LR 5 1 4 4 6 6 7	9/1992	POGUE, JR. ET AL	380	45	
JRH	MR 5 1 7 9 6 8 0	1/1993	COLWELL ET AL	395	425	

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
				Enclosed	No			Enclosed	No
NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR	William Perrizo, et al., Distributed Join Processing Performance Evaluation, 1994.
JRH	UR	Twenty-Seventh Hawaii International Conference on System Sciences, Vol II, pp. 236-244.
JRH	UR	A concurrency Control Mechanism based on Extendible Hashing for Main Memory Database Systems, Vijay Kumar, pp. 109-113, ACM, Vol. 3, 1989.
JRH	VR	Birgit Pfitzmann, Sorting Out Signature Schemes, November 1993, 1st Conf. Computer & Comm. Security '93 pp. 74-85.

EXAMINER

JEAN R. HOMERE

DATE CONSIDERED

9/4/96

*EXAMINER: Initial if citation 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.

DATE: August 2, 1995

Sheet 3 of 5

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**
(Use several sheets if necessary)

ATTY. CHECK NO. 213987 /	GROUP ART UNIT UNKNOWN 2771
M# / Client Ref.	EXAMINER Homer
APPLICANT (inventor(s)) FARBER, et al	UNKNOWN
APPLN. NO. 08 / 425,160 960079	FILING DATE APRIL 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
JRH	AR 5 2 0 2 9 8 2	4/1993	GRAMLICH ET AL	395	600	Previously cited.
JRH	BR 5 3 5 7 6 2 3	10/1994	MEGORY-COHEN	395	425	
	CR					
	DR					
	ER					
	FR					
	GR					
	HR					
	IR					
	JR					
	KR					
	LR					
	MR					

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation	
				Enclosed	No			Readily Available	No
NR									
OR									
PR									
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SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR	Bert den Boer, et al., Collisions for the compression function of MD, pp. 292-304, 1994.
JRH	UR	Sakti Pramanik, et al., Multi-Directory Hashing, 1993, Info. Sys., Vol. 18, No. 1, pp. 63-74
JRH	UR	Murlidhar Koushik, Dynamic Hashing With Distributed Overflow Space: A File Organization With Good Insertion Performance, 1993, Info. Sys., Vol. 18, No. 5, pp. 299-317.

EXAMINER

Jean R. Homere

DATE CONSIDERED

9/4/96

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DATE: August 2, 1995

Sheet 4 of 5

Form PTO-1449 (REV. 2-83) Cushman Version U.S. Department of Commerce Patent and Trademark Office
INFORMATION DISCLOSURE STATEMENT BY APPLICANT
 (Use several sheets if necessary)

ATTY. DOCKET NO. 213987 /
 M# / Client Ref.
 APPLICANT (inventor(s)) FARBER, et al
 APPLN. NO. 0 8 425,160 - 960079
 GROUP ART UNIT UNKNOWN 2221
 EXAMINER Homere
 FILING DATE April 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
AR						
BR						
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HR						
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MR						

FOREIGN PATENT DOCUMENTS

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SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR	Witold Litwin, et al., LH*-Linear Hashing for Distributed Files, HP Labs Tech. Report No. HPL-93-21 June 1993 pp 1-22.
JRH	UR	Yuliang Zheng, et al., HAVAL - A One-Way Hashing Algorithm with Variable Length of Output (Extended Abstract), pp. 83-105, <u>Advances in Cryptology, AUSCRIPT '92, 1992</u>
JRH	VR	Chris Charnes and Josef Pieprzky, Linear Nonequivalence versus Nonlinearity, Pieprzky, pp.156-164, <u>1993.</u>

EXAMINER Jean R. Homere DATE CONSIDERED 9/04/96

*EXAMINER: Initial if citation 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.

DATE: August 2, 1995

Sheet 5 of 5

Form PTO-1449
(REV. 2-83)

Cushman Version

U.S. Department of Commerce
Patent and Trademark Office

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**
(Use several sheets if necessary)

ATTY. DOCKET NO.
213987 /

M# / Client Ref.

GROUP ART UNIT

~~UNKNOWN~~ 2777

APPLICANT (inventor(s))
FARBER, et al

EXAMINER *Homere*
~~UNKNOWN~~

APPLN. NO. 96079
08/426,160

FILING DATE
April 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
AR						
BR						
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FR						
GR						
HR						
IR						
JR						
KR						
LR						
MR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
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NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

JRH	TR	Zhiyu Tian, et al., A New Hashing Function: Statistical Behaviour and Algorithm, pp. 3-13, SIGIR Forum, 1993.
JRH	UR	G. L. Friedman, Digital Camera With Apparatus For Authentication of Images Produced From an Image File, NASA CASE NO. NPO-19108-1-CU, Serial No. 08/159,980, November 24, 1993.
JRH	VR	H. Goodman, February 9, 1994 "Ada, Object-Oriented Techniques, and Concurrency in Teaching Data Structures and File Management REPORT DOCUMENTATION PAGE AD-A275 385 - 94-04277.

EXAMINER

Jean R. Homere

DATE CONSIDERED

9/04/96

*EXAMINER: Initial if citation 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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

8
JD
7-11-96

In re PATENT APPLICATION of:

FARBER, et al

Group Art Unit: 2307

Appln. No. 08/425,160

Examiner: Homere, J. 11 1996

Filed: April 11, 1995

For: IDENTIFYING DATA IN A DATA
PROCESSING SYSTEM

July 3, 1996

* * * *

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Attached is a Form PTO-1449 listing the enclosed documents.

I hereby certify that each enclosed document listed on the herewith Form PTO-1449 was cited in the attached International Search Report dated June 24, 1996.

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully.

Consideration of the foregoing and enclosures plus the return of a copy of the herewith Form PTO-1449 with the

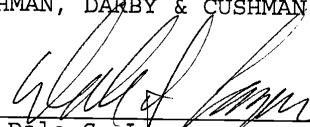
FARBER et al Application No. 425,160

Examiner's initials in the left column per MPEP 609 along with an early action on the merits of this application are earnestly solicited.

Respectfully submitted,

CUSHMAN, DARBY & CUSHMAN

By


Dale S. Lazar
Reg. No. 28,872
Tel: (202) 861-3527
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Atty. Dkt. No.	#	Client Ref.
	213987	
Applicant: FARBER, et al		
Appln. No.: 08/425,160-960079		
Filing Date: April 11, 1995		
Examiner: HOMERE, J.	Group Art Unit: 2307	

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

Date: July 3, 1996 Page 1 of 1

U.S. PATENT DOCUMENTS

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	SubClass	Filing Date (if appropriate)
JRH	AR	4,571,700	2/1986	Emry, Jr. et al	364	900	6/16/83
JRH	BR	4,675,810	6/1987	Gruner, et al	364	200	5/22/81
JRH	CR	5,050,074	9/1991	Marca	364	200	3/28/88
JRH	DR	5,276,901	1/1994	Howell, et al	395	800	12/16/91
JRH	ER	5,384,565	1/1995	Cannon	340	825.44	8/3/92
	FR						
	GR						
	HR						
	IR						
	JR						
	KR						
	LR						
	MR						
	NR						

FOREIGN PATENT DOCUMENTS

	Document Number	Date MM/YYYY	Country	Inventor Name	Class	SubClass	English Abstract		Translation Readily Available	
							Enclosed	No	Enclosed	No
	OR									
	PR									
	QR									
	RR									
	SR									
	TR									
	UR									
	VR									
	WR									
	XR									

OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)

JRH	YR	Search Report dated June 24, 1996								
	ZR									
	AAR									
	ABR									
	ACR									
	ADR									

Examiner: Jean R. HOMERE Date Considered: 9/3/96

*EXAMINER: Initial if citation 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.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/04733

A. CLASSIFICATION OF SUBJECT MATTER																				
IPC(6) : G06F 17/30; 15/00 US CL : 395/600 According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED																				
Minimum documentation searched (classification system followed by classification symbols) U.S. : 395/600; 395/182.04; 395/469; 395/741; 395/839;																				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched																				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT																				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
X	US, A, 4,571,700 (EMRY, JR. ET AL.) 18 February 1986, col.8, line 15- col.10, line 15.	1-32, 41-45, 35, 38-40,																		
X,P	US, A, 5,448,718 (COHN ET AL.) 05 September 1995, col.11, line 31- col.14, line 34).	33-34, 36-37, 51-53																		
Y	US, A, 5,202,982 (GRAMLICH ET AL.) 13 April 1993, col.17, line 1- col.20, line 41.	46-50																		
Y	US, A, 5,050,212 (DYSON) 17 September 1991, col.5, line 37- col.6, line 66.	46-50																		
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="0"> <tr> <td>* Special categories of cited documents:</td> <td>*T</td> <td>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>*A* document defining the general state of the art which is not considered to be part of particular relevance</td> <td>*X*</td> <td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>*E* earlier document published on or after the international filing date</td> <td>*Y*</td> <td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>*Z*</td> <td>document member of the same patent family</td> </tr> <tr> <td>*O* document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>*P* document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	*A* document defining the general state of the art which is not considered to be part of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	*E* earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z*	document member of the same patent family	*O* document referring to an oral disclosure, use, exhibition or other means			*P* document published prior to the international filing date but later than the priority date claimed		
* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention																		
A document defining the general state of the art which is not considered to be part of particular relevance	*X*	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone																		
E earlier document published on or after the international filing date	*Y*	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art																		
L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*Z*	document member of the same patent family																		
O document referring to an oral disclosure, use, exhibition or other means																				
P document published prior to the international filing date but later than the priority date claimed																				
Date of the actual completion of the international search 06 JUNE 1996		Date of mailing of the international search report 24 JUN 1996																		
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230		Authorized officer JEAN R. HOMERE <i>Jean R. Homere</i> Telephone No. (703) 305-9600																		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/04733

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 5,276,901 (HOWELL ET AL.) 04 January 1994	1-32,38-45
A	US, A, 5,050,074 (MARCA) 17 September 1991	46-50
A	US, A, 4,675,810 (GRUNER ET AL.) 23 June 1987	1-32, 38-45
A	US, A, 5,384,565 (CANNON) 24 January 1995	33, 36-37, 51-53

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION

FARBER, et al

Appln. No. 08/425,165

Filed: April 11, 1995

For: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM



Group Art Unit: 2307

Examiner: HOMERE, J.

9/a
1/8
7-11-96

RECEIVED

July 3, 1996

JUL 11 1996
GROUP 2300

* * * *

RESPONSE TO RESTRICTION REQUIREMENT AND PRELIMINARY AMENDMENT

Honorable Commissioner of Patents and Trademarks
Washington, D.C., 20231

Sir:

In response to the Official Action dated June 4, 1996, please amend this application as follows:

1/8
7-11-96

IN THE CLAIMS:

Please amend claim 30 as follows:

Sub B2
a1

- 30. (Amended) A method of identifying a data
- 2 item in a data processing system for subsequent access to
- 3 the data item, the method comprising the steps of:
- 4 determining a substantially unique identifier for
- 5 the data item, said identifier depending on all of the
- 6 data in the data item and only on the data in the data
- 7 item; and

FARBER et al Application No. 425,160

a' 8 accessing a data item in the system using the
9 identifier of the data item.

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the following remarks.

In response to the Examiner's Restriction Requirement, applicant elects the invention of Group I with traverse. In the Action of June 4, 1996, the Examiner listed claims 1-29, 35 and 38-40 as being in Group I. However, in an earlier telephone conversation with the Examiner on May 30, 1996, he indicated that Group I included claims 1-32 and 35-45.

As noted above, the Examiner's restriction requirement is respectfully traversed. Applicants note that the claims of Group I, in particular, claims 7-9, 16 and 28, are drawn to the same invention as those of Group II. Accordingly, applicants submit that Groups I and II should be combined for examination.

Claim 30 is amended to clarify that the unique identifier for the data item:

- (a) depends on all of the data in the data item and
- (b) depends only on the data in the data item.


FARBER et al Application No. 425,160

Applicants respectfully submit that this application is in condition for allowance and early and favorable Action on the merits of this application are respectfully requested.

Respectfully submitted,

CUSHMAN DABBY & CUSHMAN

By


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08/425,160



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

LB

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/425,160 04/11/95 FARBER

D 213987

EXAMINER

HOMERE, J

10

ART UNIT

PAPER NUMBER

E3M1/0912

CUSHMAN DARBY AND CUSHMAN
1100 NEW YORK AVENUE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

2307

DATE MAILED: 09/12/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined Responsive to communication filed on 07/03/96 This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- 1. Notice of References Cited by Examiner, PTO-892.
- 2. Notice of Draftsman's Patent Drawing Review, PTO-948.
- 3. Notice of Art Cited by Applicant, PTO-1449.
- 4. Notice of Informal Patent Application, PTO-152.
- 5. Information on How to Effect Drawing Changes, PTO-1474.
- 6.

Part II SUMMARY OF ACTION

- 1. Claims 1-45, 51-53 are pending in the application.
Of the above, claims 46-50 are withdrawn from consideration.
- 2. Claims _____ have been cancelled.
- 3. Claims _____ are allowed.
- 4. Claims 1-45, 51-53 are rejected.
- 5. Claims _____ are objected to.
- 6. Claims _____ are subject to restriction or election requirement.
- 7. This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- 8. Formal drawings are required in response to this Office action.
- 9. The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are acceptable; not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- 10. The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been approved by the examiner; disapproved by the examiner (see explanation).
- 11. The proposed drawing correction, filed _____, has been approved; disapproved (see explanation).
- 12. Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has been received not been received been filed in parent application, serial no. _____; filed on _____.
- 13. Since this application appears to be 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.
- 14. Other

EXAMINER'S ACTION

Serial Number: 08/425,160

Page 2

Art Unit:

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements filed on 04/11/95, 08/02/95, and 07/11/96 complies with the provisions of MPEP § 609. They have been placed in the application file, and the information referred to therein has been considered as to the merits. However, the applicant is advised to provide the publication dates for all the documents cited in the IDS (please see attached copies).

2. *Drawings*

This application has been filed with informal drawings which are acceptable for examination purposes only. The application having been allowed, formal drawings are required in response to this Office action.

3. *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Art Unit:

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 11-15, 18-20, 22-32, 35, 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Gramlich et al., USP no.5,202,982(supplied by applicant in paper no.4).

As to claim 1, Gramlich taught:

- 1)identity means for determining a unique identifier(col.2, lines 52-55; col.17, lines 14-20);
- 2)existence means for determining whether a particular item is present in the system(col.2, lines 42-48).

As to claims 2-3, Gramlich taught:

- 1)local existence means for determining whether a particular instance is present at a particular location(col.2, lines 42-48).

As to claim 4, Gramlich taught:

- 1)a data associating means between a data item and a corresponding identifier(col.17, lines 38-41);

Art Unit:

2)access means for accessing a particular data item using corresponding identifier(col.17, lines 45-50).

As to claim 11, Gramlich taught:

1)a requesting means for requesting a data item at a current location (col.18, lines 20-21).

As to claim 12, Gramlich taught:

1)a context means for making and maintaining a context association between a contextual name of a data item and the identifier thereof(col.17, lines 38-41);

2)referencing means for obtaining the identifier of the data item(col.17, lines 45-50).

As to claim 23, Gramlich taught:

1)means for verifying the integrity of a data item obtained from the requesting means(col.2, lines 31-32).

6. The limitations of claims 13-15, 18-20, 22-32, 35, 38-45 have already been discussed in the preceding paragraph. They are therefore rejected on similar grounds.

Art Unit:

Claim Rejections - 35 USC § 103

7. 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) 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 said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness unobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit:

9. Claims 5-10, 16-17, 21, 33-34, 36-37, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gramlich et al. as applied to claims 1-4, 11-15, 18-20, 22-32, 35, 38-45 above, and further in view of Konrad et al., USP no.5,404,508.

In reference to claims 5-10, 16-17, 21, 33-34, 36-37, 51-53, Gramlich did not specifically detail the means for copying the contents of a source file to thereby generate a backup file that is used for restoring and recovering the data items of the source file upon failure. However, Konrad taught an analogous system that detailed the aforementioned features (that the primary reference lacked) as follows:

As to claim 5, Konrad et al. taught:

1) a duplication means for copying a data item from a source to a destination (col.4, lines 48-51; col.7, lines 37-39).

As to claim 6, Konrad et al. taught:

1) an assimilation means for assimilating new data item into the system (col.14, lines 7-10).

As to claim 8, Konrad et al. taught:

1) a backup means for making copies for data items in the system (col.14, lines 4-6).

Serial Number: 08/425,160

Page 7

Art Unit:

As to claim 9, Konrad et al. taught:

1) a recovery means for retrieving data previously backed up(col.7, lines 33-48).

As to claim 10, Konrad et al. taught:

1) a remote existence means for determining whether data is present at a remote location(col.5, lines 10-29).

As to claim 15, Konrad et al. taught:

a transparent access means for accessing a data item from one of several locations(col.5, lines 10-29).

As to claim 21, Konrad et al. taught:

1) means for advertising a data item to different locations in the system(col.6, lines 44-47).

It would have been obvious to one of ordinary skill in the art of data processing to combine the teachings of the cited references because Konrad et al.'s system would increase the reliability of Ramlich's system by allowing it to be available and accessible at all times.

10. The limitations of claims 7, 16-17, 33-34, 36-37, 51-53 have already been discussed in the preceding paragraph. They are therefore rejected on similar grounds.

Serial Number: 08/425,160

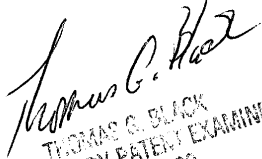
Page 8

Art Unit:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean R. Homere whose telephone number is (703)-308-6647. The examiner can normally be reached on Monday-Friday from 08:30 a.m.-5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black, can be reached on (703)-305-9707. The facsimile phone number for this group is (703) 305-9564 or 9565.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.


THOMAS G. BLACK
SUPERVISORY PATENT EXAMINER
GROUP 2300

JRH

September 7, 1996

FORM PTO-892 (REV. 2-92)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	SERIAL NO. 08/425,160 960079	GROUP/ART UNIT 2307	ATTACHMENT TO PAPER NUMBER
NOTICE OF REFERENCES CITED		APPLICANT(S) Farber et al.		

U.S. PATENT DOCUMENTS											
*		DOCUMENT NO.					DATE	NAME	CLASS	SUB-CLASS	FILING DATE IF APPROPRIATE
	A	5	3	0	1	2	8	6	04/05/94	RAJANI	395 400
	B	5	4	0	4	5	0	8	04/04/95	Konrad et al.	395 600 12/3/92
	C										
	D										
	E										
	F										
	G										
	H										
	I										
	J										
	K										

FOREIGN PATENT DOCUMENTS													
*		DOCUMENT NO.					DATE	COUNTRY	NAME	CLASS	SUB-CLASS	PERTINENT SHTS. DWG.	PP. SPEC.
	L												
	M												
	N												
	O												
	P												
	Q												

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)										
	R									
	S									
	T									
	U									

EXAMINER Jean R. Homere	DATE 09/07/96
----------------------------	------------------

* A copy of this reference is not being furnished with this office action.
(See Manual of Patent Examining Procedure, section 707.05 (a).)



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKETT NO.
08/425,160	04/11/95	Farber	21

EXAMINER
 Homere, J

ART UNIT	PAPER NUMBER
2307	11

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

- (1) Jean R. Homere (PTO) (3) _____
 (2) Brian SiRITZKY (reg. 37,497) (4) _____

Date of Interview 3/10/97

Type: Telephonic Personal (copy is given to applicant applicant's representative).

Exhibit shown or demonstration conducted: Yes No. If yes, brief description: _____

Agreement was reached with respect to some or all of the claims in question. was not reached.

Claims discussed: 1

Identification of prior art discussed: Gramlich, USP no. 5,202,982

Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant's representative explained the differences between the claimed invention and the Prior art of record, specifically Gramlich allegedly does not use all and only the data to generate the unique name. The Examiner kindly submitted that the applicant's arguments will be considered in the next office action.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

1. It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph below has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

2. Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the substance of the interview unless box 1 above is also checked.

Jean R. Homere
 Examiner's Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventor(s): FARBER, et al
 Appln. No.: 08

Series Code ↑ 425,160
 Serial No. ↑



Group Art Unit 2307
 Examiner: HOMERE, J.
 Atty. Dkt. 213987

Filed: APRIL 11, 1995
 Title: DATA PROCESSING SYSTEM USING SUBSTANTIALLY
 UNIQUE IDENTIFIERS TO IDENTIFY DATA (as amended)

(Our Deposit Account No. 03-3975)

(Our Order No. 7018)

Hon. Commissioner of Patents
 and Trademarks
 Washington, D.C. 20231

Date: March 12, 1997

12/12/97
 Set
 4/4/97
 (3)

Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. "Small Entity" statement(s) filed		Claims remaining after amendment	Highest number previously paid for		Present Extra	Large/Small Entity	Additional Fee	Fee Code	
<input type="checkbox"/> previously	<input type="checkbox"/> herewith								
(No.)									
2. Total Effective Claims		97	**minus	102	0	x \$22/\$11 =	+ 0	103/203	
3. Independent Claims		11	***minus	11	0	x \$80/\$40 =	+ 0	102/202	
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application)..... add						+ \$260/\$130 =	+ 0	104/204	
5. Original due Date: DECEMBER 12, 1996		<input type="checkbox"/> NONE							
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached			(1 mo)	\$110/\$55 =				115/215	
			(2 mos)	\$390/\$195 =		+ 465		116/216	
			(3 mos)	\$930/\$465 =				117/217	
7. Enter any previous extension fee paid since above original due date and subtract		-							
8.		Extension Fee Attached					+ 465		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee		+ \$110/\$55 =					+ 0	148/248	
10. If IDS attached requires Official Fee, add		+ \$230 =					+ 0	126	
or if Rule 97(d) Petition		+ \$130 =						122	
11. After-Final Request Fee per rules 129(a) and 17(r)		+ \$770/385 =					+ 0	146/246	
12. No. of additional inventions for examination per Rule 129(b)		x \$770/385 ea =					+ 0	149/249	
13. Petition fee for		+							
14.		TOTAL FEE ENCLOSED =					\$ 465		

- 15. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".
- 16. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.
- 17. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown in the heading hereof, for which purpose a duplicate copy of this sheet is attached.
 This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

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44-97

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

FARBER, et al



Group Art Unit: 2307

Appln. No. 08/425,160

Examiner: HOMERE, J.

Filed: April 11, 1995

For: DATA PROCESSING SYSTEM USING SUBSTANTIALLY
UNIQUE IDENTIFIERS TO IDENTIFY DATA (As
amended)

March 12, 1997

* * * *

AMENDMENT UNDER 37 CFR 1.115

97 APR -3 PM 6:23
GROUP 240
RECEIVED

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Please amend this application as follows:

In the Title:

Please replace the title with --DATA PROCESSING SYSTEM
USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA--.

In the claims:

Please amend the claims as follows:

BT
cont

- 1 1. (Amended) In a data processing system, an
- 2 apparatus comprising:
- 3 identity means for determining, for any of a
- 4 plurality of data items present in the system, a
- 5 substantially unique identifier, said identifier

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cancel*

6 depending on all of the data in the data item and only on
7 the data in the data item; and
8 existence means for determining whether a particular
9 data item is present in the system, by examining the
10 identifiers of the plurality of data items.

Sub E 3

1 30. (Twice Amended) A method of identifying a data
2 item present in a data processing system for subsequent
3 access to the data item, the method comprising [the steps
4 of]:
5 determining a substantially unique identifier for
6 the data item, said identifier depending on all of the
7 data in the data item and only on the data in the data
8 item; and
9 accessing a data item in the system using the
10 identifier of the data item.

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cont*

1 31. (Amended) A method as in claim 30, further
2 comprising [the step of]:
3 making and maintaining, for a plurality of data
4 items present in the system, an association between each
5 of the data items and the identifier of each of the data
6 items, wherein said accessing a data item [step] accesses
7 a data item via the association.

1 32. (Amended) A method as in claim 31, further
2 comprising [the step of]:
3 assimilating a new data item into the system, by
4 determining the identifier of the new data item and
5 associating the new data item with its identifier.

Sub E 4

1 33. (Amended) A method for duplicating a given data
2 item present at [from] a source location to a destination

3 location in a data processing system, the method
4 comprising [the steps of]:
5 determining a substantially unique identifier for
6 the given data item, said identifier depending on all of
7 the data in the data item and only on the data in the
8 data item;
9 determining, using said data identifier, whether
10 said data item is present at said destination location;
11 and
12 based on said determining, providing said
13 destination location with said data item only if said
14 data item is not present at said destination.

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cont

1 34. (Amended) A method as in claim 33, wherein said
2 given data item is a compound data item having a
3 plurality of component data items, the method further
4 comprising [the steps of]:
5 for each data item of said component data items,
6 obtaining the component data identifier of
7 the data item by determining a substantially unique
8 identifier for the data item, said identifier
9 depending on all of the data in the data item and
10 only on the data in the data item;
11 determining, using said obtained component
12 data identifier, whether said data item is present
13 at said destination; and
14 based on said determining, providing said
15 destination with said data item only if said data
16 item is not present at said destination.

1 35. (Amended) A method for determining whether a
2 particular data item is present in a data processing
3 system, the method comprising [the steps of]:

4 (A) for each data item of a plurality of data items
5 present in the system,
6 (i) determining a substantially unique
7 identifier for the data item, said identifier
8 depending on all of the data in the data item and
9 only on the data in the data item; and
10 (ii) making and maintaining a set of
11 identifiers of said plurality of data items; and
12 (B) for the particular data item,
13 (i) determining a particular substantially
14 unique identifier for the data item, said identifier
15 depending on all of the data in the data item and
16 only on the data in the data item; and
17 (ii) determining whether said particular
18 identifier is in said set of data items.

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cont

1 36. (Amended) A method of backing up, of a plurality
2 of data items present in a data processing system, data
3 items modified since a previous backup time in [a] the
4 data processing system, the method comprising [the steps
5 of]:

6 (A) maintaining a backup record of identifiers of
7 data items backed up at the previous backup time;
8 and

9 (B) for each of said plurality of data items
10 present in the data processing system,

11 (i) determining a substantially unique
12 identifier for the data item, said identifier
13 depending on all of the data in the data item
14 and only on the data in the data item;

15 (ii) determining those data items of the
16 plurality of data items whose identifiers are
17 not in the backup record; and

18 (iii) based on said determining, copying only
19 those data items whose data identities are not
20 recorded in the backup record.

1 37. A method as in claim 36, further comprising
2 [the step of]:
3 recording in the backup record the identifiers of
4 those data items copied in said [step of] copying.

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Cont

1 38. (Amended) A method of locating a particular data
2 item at a location in a data processing system, the
3 method comprising [the steps of]:

4 (A) determining a substantially unique identifier
5 for the data item, said identifier depending on all
6 of the data in the data item and only on the data in
7 the data item;

8 (B) requesting the particular data item by sending
9 the data identifier of the data item from the
10 requestor location to at least one location of a
11 plurality of provider locations in the system; and

12 (C) on at least some of said provider locations,
13 (a) for each data item of a plurality of data
14 items at said provider locations,

15 (i) determining a substantially unique
16 identifier for the data item, said identifier
17 depending on all of the data in the data item
18 and only on the data in the data item; and

19 (ii) making and maintaining a set of
20 identifiers of data items,

21 (b) determining, based on said set of
22 identifiers, whether the data item
23 corresponding to the requested data identifier
24 is present at said provider location; and

25 (c) based on said determining, when said
26 provider location determines that the
27 particular data item is present at the provider
28 location, notifying said requestor that the
29 provider has a copy of the given data item.

1 39. (Amended) The method of claim 38, further
2 comprising [the steps of]:

3 (a) for each data item of a plurality of data items
4 present at said provider locations,
5 making and maintaining an association between
6 the data item and the identifier of the data
7 item,

8 (b) in response to said notifying, said client
9 location copying said data item from one of said
10 responding remote locations, using said association
11 to access the data item given the data identifier.

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cont

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1 40. (Amended) A method of locating a particular data
2 item among a plurality of locations, each of said
3 locations having a plurality of data items, the method
4 comprising [the steps of]:

5 determining, for the particular data item and for
6 each data item of the plurality of data items, a
7 substantially unique identifier for the data item, said
8 identifier depending on all of the data in the data item
9 and only on the data in the data item; and

10 determining the presence of the particular data item
11 in each of said plurality of locations by determining
12 whether the identifier of the particular data item is
13 present at each of said locations.

1 41. (Amended) The method of claim 30, wherein said
2 [step of] accessing further comprises [the steps of],

3 for a given data identifier and for a given current
4 location and a remote location in the system:
5 determining whether the data item corresponding to
6 the given data identifier is present at the current
7 location, and
8 based on said determining, if said data item is not
9 present at the current location, fetching the data item
10 from a remote location in the system to the current
11 location.

1 42. (Amended) The method of claim 41, further
2 comprising [the steps of]:

3 for each contextual name at a location,
4 making and maintaining a context association
5 between the context name of a data item and the
6 identifier of said data item, and when some context
7 association changes at said current location, and
8 notifying said remote location of a
9 modification to the context association.

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1 43. (Amended) The method of claim 42, further
2 comprising [the step of]:

3 at said remote location, updating the association
4 between the contextual identifier of the data item and
5 the identifier of the data item.

1 44. (Amended) The method of claim 43, further
2 comprising [the step of]:

3 from said remote location, notifying all other
4 locations that said data item has been modified, by
5 providing the contextual identifier and data identifier
6 of said data item to said other locations.

1 45. (Amended) The method of claim 44, further
2 comprising [the step of], at each location notified that
3 the data item has been modified:

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4 modifying an association between the contextual
5 identifier of the data item and the data identifier of
6 the data item, to record that the data item has been
7 modified.

Art FT

1 51. (Amended) A method of maintaining at least a
2 predetermined number of copies of a given data item in a
3 data processing system, at different locations in the
4 data processing system, said data processing system being
5 one wherein data is identified by a substantially unique
6 identifier, said identifier depending on all of the data
7 in the data item and only on the data in the data item,
8 and wherein any data item in the system may be accessed
9 using only the identifier of the data item, the method
10 comprising [the steps of]:

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11 (i) sending, from a first location in the system,
12 the data identifier of the given data item to other
13 locations in the system, and
14 (ii) in response to said sending, at each of said
15 other locations,
16 (A) determining whether the data item corresponding
17 to the data identifier is present at the other
18 location, and based on said determining, and
19 (B) informing said first location whether said data
20 item is present at the other location; and
21 (iii) in response to said informing from said other
22 locations, at said first location,
23 (A) determining whether said data item is present
24 in at least the predetermined number of other
25 locations, and based on said determining,

26 (B) when less than the predetermined number of
27 other locations have a copy of the data item,
28 requesting some locations that do not have a copy of
29 the data item make a copy of the data item.

1 ⁴⁷~~52~~. (Amended) A method as in claim ⁴⁶51, wherein said
2 step (iii) further comprises [the step of]:

3 (C) when more than the predetermined number of
4 other locations have a copy of the data item present,
5 requesting some locations that do have a copy of the data
6 item present delete the copy of the data item.

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1 51. (Amended) A method of maintaining at least a
2 predetermined number of copies of a given data item in a
3 data processing system, at different locations in the
4 data processing system, said data processing system being
5 one wherein data is identified by a substantially unique
6 identifier, said identifier depending on all of the data
7 in the data item and only on the data in the data item,
8 and wherein any data item in the system may be accessed
9 using only the identifier of the data item, the method
10 comprising [the steps of]:

11 (i) sending, from a first location in the system,
12 the data identifier of the given data item to other
13 locations in the system; and

14 (ii) in response to said sending, at each of said
15 other locations,

16 (A) determining whether the data item corresponding
17 to the data identifier is present at the other
18 location, and based on said determining, and

19 (B) informing said first location whether said data
20 item is present at the other location; and

21 (iii) in response to said informing from said other
22 locations, at said first location,

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23 (A) determining whether said data item is present
24 in at least the predetermined number of other
25 locations, and based on said determining,
26 (B) when less than the predetermined number of
27 other locations have a copy of the data item,
28 requesting some locations that do not have a copy of
29 the data item make a copy of the data item.

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1 ⁴⁸ 53. (Amended) A method as in any of claims [30-52]
2 ⁴⁶ ⁴⁷ 30-45, ~~51~~ and ~~52~~, wherein said data items are at least
3 one of a file, a database record, a message, a data
4 segment, a data block, a directory, and an instance of an
5 object class.

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the above amendments and the following remarks.

Applicants thank the Examiner for the courtesy extended their representative, Brian Siritzky, during their various telephone conversations and during the personal interview conducted March 10, 1997.

By this Amendment, the title has been replaced as requested by the Examiner and the claims have been amended. Claims 1-53 are pending in this application, of which claims 46-50 are withdrawn from consideration.

This invention relates to data processing systems and, more particularly, to data processing systems wherein data items are identified by substantially unique identifiers which depend

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on all of the data in the data items and only on the data in the data items.

For example, claim 1 recites an apparatus, in a data processing system, the apparatus comprising identity means and existence means. The identity means determines, "for any of a plurality of data items in the system, a substantially unique identifier, said identifier depending on all of the data in the data item and only on the data in the data item."

Thus, in particular, the identifier does not depend on anything not in the data item. Specifically, the identifier does not depend on other data, not on other identifiers and not on other data items.

Further, the identifier depends on all, not just some, of the data in the data item.

So, for example, if the data item is a file in a file system (and even if the file has some other identifying name), the identity means determines the unique identifier for that file based on all of the data in the file and only on the data in that file. No other data is used to determine the unique identifier. File names or data from other files are not used.

The specification refers to this name as the so-called "True Name" of the data item ("a data item may be the contents of a file, a portion of a file, a page in memory, an object in an object-oriented program, a digital message, a digital scanned image, a part of a video or audio signal, or any other entity which can be represented by a sequence of bits." *Specification*,

pg. 2). The calculation of the true name of a data item is described in the specification, for example:

A True Name is computed using a function, MD, which reduces a data block B of arbitrary length to a relatively small, fixed size identifier, the True Name of the data block, such that the True Name of the data block is virtually guaranteed to represent the data block B and only data block B.

The function MD must have the following properties:

. . . . The results of MD(B) must be evenly and randomly distributed over the range of N, in such a way that simple or regular changes to B are virtually guaranteed to produce a different value of MD(B).

. . . . A family of functions with the above properties are the so-called message digest functions,

In the presently preferred embodiments, either MD5 or SHA is employed as the basis for the computation of True Names.

Specification, page 22 et seq, emphasis added.

Note that each of the independent claims (1, 30, 33, 35, 36, 38, 40 and 51) recites some similar means or method for determining a substantially unique identifier.

For example, claim 31, as amended, and claims 35, 36 and 38 recite "determining a substantially unique identifier for the data item, said identifier depending on all of the data in the data item and only on the data in the data item," and claim 33 recites "determining a substantially unique identifier for the given data item, said identifier depending on all of the data in the data item and only on the data in the data item."

The Claim Rejections

The Examiner has rejected claims 1-4, 11-15, 18-20, 22-32, 35 and 38-45 under 35 U.S.C. § 102(b) as being anticipated by Gramlich. This rejection is respectfully traversed.

Gramlich relates to naming of database component files so as to avoid duplication of files. Gramlich, however, does not teach or suggest the presently claimed means or method determining a substantially unique identifier.

As an initial matter, it is important to understand Gramlich's terminology or nomenclature and what he is trying to achieve.

Gramlich has two kinds of files, namely source files and database component files. "Each database component file contains information regarding the text contained in one source file." *Gramlich*, col. 3, lines 4-5. Also, "A database component file is created for each source file." *Gramlich*, col. 5, lines 66-67.

Source files, in Gramlich's preferred embodiments, contain computer program source code (hence their name). The database component files contain information about the textual words (symbols) in the source files.

For each textual word (. . . "symbol") [in a source file], an entry in the database component file is provided containing symbol information . . . [comprising] the symbol name, symbol type and line number in the source file where the symbol is located.

Gramlich, col. 3, lines 8-13.

Gramlich gives an example of a source file and its corresponding database component file in figures 3a and 3c. The source file in Figure 3a has five lines of C program text:

```
1      #include <stdio.h>
2      main()
3      {
4          printf("Hello world\n");
5      }
```

The name of the source file shown in Figure 3a is "foo.c". (See, e.g. *Gramlich*, col. 6, lines 12-28).

When Gramlich determines the name of the database component file, this name is determined from two things. First, Gramlich includes the source code file name in the database component file name. Then Gramlich includes a hash value to make up the rest of the database component file name.

Thus, unlike the unique identifiers of the present invention, the composition of Gramlich's database component file name is thus clearly a function of data not in the database component file (i.e., the source file name and the data in the source file). Gramlich is quite clear about this requirement throughout his description. For example:

the source file name is used . . . to construct the database file name

Gramlich, Abstract, emphasis added (except as otherwise noted, all following emphases in quotations are added).

Preferably, the name of the file is generated by computing a hash value from the sum of the contents of the file and concatenating the hash value to the name of the file.

Gramlich, col. 2, lines 52-55. Note that this is the section of *Gramlich* cited by the Examiner as supposedly teaching the claimed identity means.

the file name . . . would be:
"[source code file name].[hash value].bd".

Gramlich, col. 8, lines 23-24.

So, we have shown so far that, unlike the data item (file) names in the present invention, *Gramlich's* file names do not depend "only on the data in the data item."

Further, *Gramlich's* file names are not unique, even without his use of the source file name. As *Gramlich* states,

[e]ach database component file name includes a hash value which, when combined with the file name of the source file results in a unique file name.

Gramlich, col. 6, lines 29-31.

Thus, when not combined with the source file name, i.e., when using the hash value alone, *Gramlich's* file name may not be unique.

Further, even if, and this is quite contrary to *Gramlich's* teaching, the source code file name were omitted from *Gramlich's* file name, the remaining name, "[hash value].bd" does not depend on "all of the data in the data item and only on the data in the data item." In fact, in *Gramlich*, the hash value is a function of the source file, not of the database component file.

The hash value is computed as a function of the contents of the source file wherein if the contents of the source file changes, the hash code changes.

Gramlich, col. 6, lines 29-31.

The name of the database component file to be generated is derived from the name of the text file and a hash value. The hash value is computed as a function of the contents of the file such that if the contents of the text file changes, the hash code changes, thereby distinguishing between the database component files for different versions of the same text file.

Gramlich, col. 7, lines 24-30.

So, Gramlich teaches a system where a database component file name is determined as a function of two things, both of which relate to and come from a different file. There is nothing in Gramlich to teach that if the database component file itself changes this will change the database component file name.

Further support for this can be seen by the fact that Gramlich actually determines the name of the database component file before the file is even generated.

Prior to generating the database component file, a unique name is generated for the database component file to be generated.

Gramlich, col. 7, lines 22-24.

prior to generating a database component file, [the collector] will generate the hash value, combine it with the source file name.

Gramlich, col. 15, lines 23-24.

Regarding the order in which the database component file name and the actual file are generated, see also Gramlich's figures 5a and 10 and their corresponding description. For example, referring to Figure 5a, first Gramlich

at block 400 . . . generates a unique name to identify the database component file. . . .

[then] at block 410, the database component file name generated is checked against the existing database component file names . . . [and if] the database component file name exists . . . [then] there is no need to generate another database component file. If the database component file name does not exist, at block 420 a database component file identified by the unique database component file name is generated.

Gramlich, col. 10, line 51 to col. 11, line 2.

Gramlich's figure 10, block 700 serves the same function. If "the database component file name already exists . . . there is no need to generate a new database component file." *Gramlich*, col. 15, lines 25-27.

Thus, in Gramlich, if a unique database component file is determined, only then is the database file actually generated. So a database component file is not generated unless its name will be unique.

If the name of the database component file depended on the data in the database component file then the file would have to have been created before the name was determined.

In the present invention, the name of a data item (file etc.) is determined from the data item. Therefore the data item cannot be created after the name is determined. The claims have been amended to clarify that the substantially unique identifier is determined for existing data items (e.g., in claim 1, "data items present in the system").

Gramlich does talk about generating a hash of information to be contained in the database component file, but this hash is not formed from the database component file. For

example, "the hash value is a sum of various key pieces of information to be contained in the database component file." *Gramlich*, col. 7, lines 53-55. Notably, Gramlich does not even use all of the information in the source file, only "various key pieces of information." (See also, "To generate the hash values . . . certain information is selected." *Gramlich*, col. 7, lines 62-63.)

In one place Gramlich does state that the "hash value is generated as a function of the contents of the database component file" (*Gramlich*, col. 10, lines 57-59), but there Gramlich specifically states that in order to get "a unique name to identify the database component file . . . the source file name is concatenated with a hash value." *Gramlich*, col. 10, lines 52-55. Gramlich's hash is preferably computed "from the sum of the contents of the file," *Gramlich*, col. 2, lines 53-54 and is therefore unlikely result in a unique name without additional concatenated components (e.g., the source file name).

In fact Gramlich is concerned about the source files and their corresponding database component files getting out of synch. To deal with this problem he puts hash values of the various source lines into the database component files. See generally, *Gramlich*, col. 9, lines 16-51.

Note also that what Gramlich refers to as a hash function is not the same as the type of function used in preferred embodiments of this invention. Even when large changes are made to text files, Gramlich will not necessarily get a

different database component file name. For example, the source program shown in Gramlich's figure 3a could be changed at line 4 to

```
1      #include <stdio.h>
2      main()
3      {
4          fprintf("world Hello\n");
5      }
```

and this would still, according to Gramlich's "hash" function, get the same hash result and therefore the same database component file name. Since Gramlich computes his hash based on the hashes of source lines ("e.g. the sum of the bytes in the line." *Gramlich*, col. 6, lines 49-50), the new line 4 will result in the same hash as the old line 4. So, even though the source file has changed, the database component file name will not change.

Note that Gramlich's intended use is to aid debugging of computer programs. This poorly defined hash raises doubts about the efficacy of Gramlich's approach. As a more significant example, note that in Gramlich the following two lines, while computationally completely different, would produce the same "hash":

```
a := b * c + d;
b := a + c * d;
```

So, in summary, in determining his database component file name, Gramlich does not use all of the data in the database component file and Gramlich does not use only the data in the database component file.

The Examiner cited the following supposedly to teach the identity means of the claims:

Preferably, the name of the file is generated by computing a hash value from the sum of the contents of the file and concatenating the hash value to the name of the file.

Gramlich, col. 2, lines 52-55. As noted above, what *Gramlich* is doing here is generating a name for a database component file (one file) from some of the data in a source file (another file), along with the name of the source file (the other file). Here *Gramlich* is not teaching the presently claimed means which uses all of the data in the data item and only the data in the data item. To form the name, *Gramlich* uses some of the data in another file and then adds the name of the other file.

Thus, *Gramlich* lacks at least the identity means of the present invention. Further, as to claim 1, *Gramlich* lacks the claimed existence means. In *Gramlich*,

a database component file . . . is given a unique name that is dependent upon the contents of the file such that, when the contents of the source file changes, the name of the corresponding database component file . . . also changes. *Conversely, if two database component files have identical information contained therein, the same file name will be generated and the duplication of information in the database is prevented by providing a simple test that checks for the existence of the name of the database component file before the generation and addition of the file to the database.*

Gramlich, col. 2, lines 36-49, italics added.

The Examiner relies on the italicized portion above, supposedly to show the presently claimed existence means.

Ignoring for the moment the fact that Gramlich lacks any teaching of this invention's identity means, note that Gramlich will only get the same database component file name for files generated from the same source file. Thus, the section of Gramlich cited by the Examiner must be read as

Conversely, if two database component files for a particular source file would have identical information contained therein, the same file name will be generated.

In Gramlich, identical source files with different file names will cause duplicate database component files with different names.

"For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988). Here there are clearly elements of all of the claims which are not shown at all, let alone identically, in Gramlich. In particular, Gramlich lacks at least the presently claimed system wherein data items are "identified by substantially unique identifiers which depend on **all** of the data in the data items and **only** on the data in the data items."

The differences between Gramlich and the present invention were explained in detail to the Examiner in the personal interview conducted March 10, 1997. In that interview applicants' representative explained that Gramlich does not use all of the data or only the data in the data item to generate the data items name.

A summary of the differences between Gramlich and the present invention can be seen with reference to the attached Figures A and B. As can be seen from Figure A which shows the naming operation of the present invention, a data item A-1 is given a name (true name) A-2 by passing the data item through a function MD, where MD uses all of the data in data item A-1 and only the data in data item A-1 to determine the name A-2.

Gramlich's operation is shown in attached Figure B. The name B-1 of database component file B-2 (shown in dashed lines because it is only created after the name is determined) is determined by taking the name B-3 of the source file B-4 and concatenating that with a hash of some of the contents of the source file B-4. This name B-1 is the name of the database component file B-2, yet it is formed from the data in the source file B-4 and from the name B-3 of the source file B-4.

In view of the above, applicants respectfully submit that Gramlich does not anticipate the presently claimed invention and withdrawal of this rejection is respectfully requested.

The Examiner rejected claims 5-10, 16, 17, 21, 33, 34, 36, 37 and 51-53 under 35 U.S.C. § 103 as being unpatentable over Gramlich in view of Konrad. This rejection is respectfully traversed.

As shown above, Gramlich does not name files in the same way as is done in the presently claimed invention.

The Examiner applies Konrad, supposedly to show various aspects of backup and restoring data.

Applicants respectfully submit that no proposed combination of Gramlich and Konrad would produce the presently claimed invention. Any such combination would not be a system wherein data items are identified by substantially unique identifiers which depend on all of the data in the data items and only on the data in the data items.

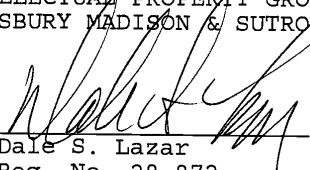
Accordingly, withdrawal of this rejection is respectfully requested.

Applicants respectfully submit that this application is in condition for allowance, and an early Action allowing the claims is solicited.

Respectfully submitted,

CUSHMAN DARBY & CUSHMAN
INTELLECTUAL PROPERTY GROUP OF
PILLSBURY MADISON & SUTRO, L.L.P.

By


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213987

3702

Appln. of Farber et al

Figure A

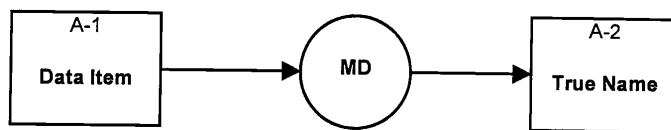
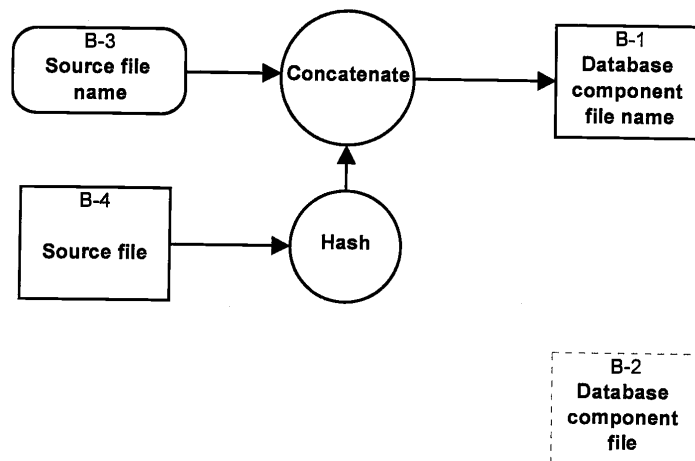


Figure B



08/425,160



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

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Table with 4 columns: SERIAL NUMBER, FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO.

08/425,160 04/11/95 FARBER D 213987

EXAMINER

24M1/0530

HOMER ASPIRT PAPER NUMBER 14

CUSHMAN DARBY AND CUSHMAN 1100 NEW YORK AVENUE NW NINTH FLOOR EAST TOWER WASHINGTON DC 20005-3918

2307

DATE MAILED: 05/30/97

This is a communication from the examiner in charge of your application. COMMISSIONER OF PATENTS AND TRADEMARKS

[X] This application has been examined [X] Responsive to communication filed on 03/12/97 [X] This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- 1. [] Notice of References Cited by Examiner, PTO-892. 2. [] Notice of Draftsman's Patent Drawing Review, PTO-948. 3. [] Notice of Art Cited by Applicant, PTO-1449. 4. [] Notice of Informal Patent Application, PTO-152. 5. [] Information on How to Effect Drawing Changes, PTO-1474. 6. []

Part II SUMMARY OF ACTION

- 1. [X] Claims 1-45, 51-53 are pending in the application. Of the above, claims are withdrawn from consideration. 2. [] Claims have been cancelled. 3. [] Claims are allowed. 4. [X] Claims 1-45, 51-53 are rejected. 5. [] Claims are objected to. 6. [] Claims are subject to restriction or election requirement. 7. [X] This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes. 8. [] Formal drawings are required in response to this Office action. 9. [] The corrected or substitute drawings have been received on Under 37 C.F.R. 1.84 these drawings are [] acceptable; [] not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948). 10. [] The proposed additional or substitute sheet(s) of drawings, filed on has (have) been [] approved by the examiner; [] disapproved by the examiner (see explanation). 11. [] The proposed drawing correction, filed, has been [] approved; [] disapproved (see explanation). 12. [] Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has [] been received [] not been received [] been filed in parent application, serial no. ; filed on. 13. [] Since this application appears to be 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. 14. [] Other

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DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on 03/12/97 have been fully considered but they are not persuasive.

Information Disclosure Statement

2. The applicant is advised to provide the publication dates for all the documents cited in the information disclosure statements filed on 04/11/95, 08/02/95, and 07/11/96 (please see attached copies sent with the office action of 09/12/96.

Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only.

Specification

3. The title of the invention has not been substantially amended to be descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 11-15, 18-20, 22-32, 35, 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Gramlich et al. ('Gramlich', hereinafter), USP no.5,202,982(supplied by applicant in paper no.4).

As to claim 1, Gramlich taught:

- 1)identity means for determining a unique identifier(col.2, lines 52-55; col.17, lines 14-20);
- 2)existence means for determining whether a particular item is present in the system(col.2, lines 42-48).

As to claims 2-3, Gramlich taught:

- 1)local existence means for determining whether a particular instance is present at a particular location(col.2, lines 42-48).

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As to claim 4, Gramlich taught:

- 1) a data associating means between a data item and a corresponding identifier (col. 17, lines 38-41);
- 2) access means for accessing a particular data item using corresponding identifier (col. 17, lines 45-50).

As to claim 11, Gramlich taught:

- 1) a requesting means for requesting a data item at a current location (col. 18, lines 20-21).

As to claim 12, Gramlich taught:

- 1) a context means for making and maintaining a context association between a contextual name of a data item and the identifier thereof (col. 17, lines 38-41);
- 2) referencing means for obtaining the identifier of the data item (col. 17, lines 45-50).

As to claim 23, Gramlich taught:

- 1) means for verifying the integrity of a data item obtained from the requesting means (col. 2, lines 31-32).

6. The limitations of claims 13-15, 18-20, 22-32, 35, 38-45 have already been discussed in the preceding paragraph. They are therefore rejected on similar grounds.

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Claim Rejections - 35 USC § 103

7. 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) 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 said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 148 USPQ 459, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or unobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 5-10, 16-17, 21, 33-34, 36-37, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gramlich et al. as applied to claims 1-4, 11-15, 18-20, 22-32, 35, 38-45 above, and further in view of Konrad et al., USP no.5,404,508.

In reference to claims 5-10, 16-17, 21, 33-34, 36-37, 51-53, Gramlich did not specifically detail the means for copying the contents of a source file to thereby generate a backup file that is used for restoring and recovering the data items of the source file upon failure. However, Konrad taught an analogous system that detailed the aforementioned features (that the primary reference lacked) as follows:

As to claim 5, Konrad et al. taught:

1) a duplication means for copying a data item from a source to a destination (col. 4, lines 48-51; col. 7, lines 37-39).

As to claim 6, Konrad et al. taught:

1) an assimilation means for assimilating new data item into the system (col. 14, lines 7-10).

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As to claim 8, Konrad et al. taught:

1) a backup means for making copies for data items in the system(col.14, lines 4-6).

As to claim 9, Konrad et al. taught:

1)a recovery means for retrieving data previously backed up(col.7, lines 33-48).

As to claim 10, Konrad et al. taught:

1) a remote existence means for determining whether data is present at a remote location(col.5, lines 10-29).

As to claim 15, Konrad et al. taught:

a transparent access means for accessing a data item from one of several locations(col.5, lines 10-29).

As to claim 21, Konrad et al. taught:

1)means for advertising a data item to different locations in the system(col.6, lines 44-47).

It would have been obvious to one of ordinary skill in the art of data processing to combine the teachings of the cited references because Konrad et al.'s system would increase the reliability of Ramlich's system by allowing it to be available and accessible at all times.

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10. The limitations of claims 7, 16-17, 33-34, 36-37, 51-53 have already been discussed in the preceding paragraph. They are therefore rejected on similar grounds.

Remarks

The applicants alledge that claims 1-4, 11-15, 18-20, 22-32, 35, 38-45 are not anticipated by Gramlich, and claims 5-10, 16-17, 21, 33-34, 36-37, 51-53 are not obvious over Gramlich in view of Konrad because Gramlich's unique identifiers do not depend on all of the data in the data items and only on the data in the data items. The applicants seem to be arguing that Gramlich's identifiers depend only on the source files not on the database files. Therefore, they cannot depend on only and all of the data in the data items, as required by the applicants's claims.

In response to the preceding allegations, the examiner respectfully submits that such analysis of the reference is erroneous. Gramlich details a unique name that is dependent upon the contents of the data items such that the unique names of corresponding database files change when the contents of the source file change (please see col.2, lines 38-42). The applicant's attempt to completely separate the source files from the database files is improper. The source files are rather computer codes for the database files. One of ordinary skill in the art would never separate two. The ordinary skilled artisan would realize that source files can be used as back ups when the database files are defective. Since each source file is used to generate a corresponding database

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file, the unique name to a source file is therefore the same to the corresponding database file (DB files cannot exist without the source files). Thus, it would be redundant for Gramlich to specify unique identifiers for the source files and additional ones for the database files since unique identifiers for source files are inherently the same identifiers for the database files. Therefore, Gramlich's unique names do depend on only and all of the data in the data items. In light of the foregoing arguments, the 35 USC 102 and 103 rejections are hereby sustained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response 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

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date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

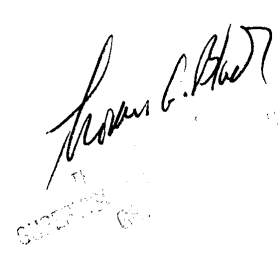
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean R. Homere whose telephone number is (703)-308-6647. The examiner can normally be reached on Monday-Friday from 08:30 a.m.-5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black, can be reached on (703)-305-9707. The facsimile phone number for this group is (703) 305-9564 or 9565.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

JRH

May 27, 1997

A handwritten signature in cursive script, appearing to read "Thomas G. Black", is written over a faint, circular official stamp. The stamp contains some illegible text and a central emblem.

#15/cche

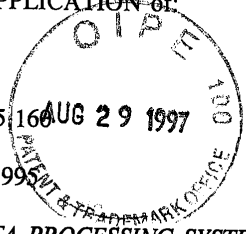
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

FARBER, et al

Group Art Unit: 2307

Appln. No. 08/425,160



Examiner: HOMERE, J.

Filed: April 11, 1995

For:

*DATA PROCESSING SYSTEM USING SUBSTANTIALLY
UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS,
WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME
IDENTIFIER (As amended)*

August 29, 1997

* * * *

AMENDMENT UNDER 37 CFR 1.116

COPIES
15 9-165
[unclear]

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Please amend this application as follows:

In the Claims:

- 1 1. (Twice Amended) In a data processing system, an apparatus comprising:
- 2 identity means for determining, for any of a plurality of data items present
- 3 in the system, a substantially unique identifier, [said] the identifier being
- 4 determined using and depending on all of the data in the data item and only [on]

APPLICATION of FARBER, et al
Serial No. 08/425,160

5 the data in the data item, whereby two identical data items in the system will have
6 the same identifier; and
7 existence means for determining whether a particular data item is present
8 in the system, by examining the identifiers of the plurality of data items.

1 23. (Amended) An apparatus as in claim 11, further comprising:
2 means for verifying the integrity of a data item obtained from [said] the
3 requesting means in response to providing [said] the requesting with a particular
4 data identifier, to confirm that the data item obtained from the requesting means is
5 the same data item as the data item requested, [said] the verifying means invoking
6 [said] the identity means to determine the data identifier of the obtained data item,
7 and comparing [said] the determined data identifier with [said] the particular data
8 identifier to verify [said] the obtained data item.

1 30. (Three times amended) A method of identifying a data item present in
2 a data processing system for subsequent access to the data item, the method
3 comprising:
4 determining a substantially unique identifier for the data item, [said] the
5 identifier depending on and being determined using all of the data in the data item
6 and only [on] the data in the data item, whereby two identical data items in the
7 system will have the same identifier; and
8 accessing a data item in the system using the identifier of the data item.

1 33. (Twice Amended) A method for duplicating a given data item present
2 at a source location to a destination location in a data processing system, the
3 method comprising:

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4 determining a substantially unique identifier for the given data item, [said]
5 the identifier depending on and being determined using all of the data in the data
6 item and only [on] the data in the data item, whereby two identical data items in
7 the system will have the same identifier;

8 determining, using [said] the data identifier, whether [said] the data item is
9 present at [said] the destination location; and

10 based on [said] the determining whether the data item is present, providing
11 [said] the destination location with [said] the data item only if [said] the data item
12 is not present at [said] the destination.

1 34. (Twice Amended) A method as in claim 33, wherein [said] the given
2 data item is a compound data item having a plurality of component data items, the
3 method further comprising:

4 for each data item of [said] the component data items,

5 obtaining the component data identifier of the data item by
6 determining a substantially unique identifier for the data item, [said] the
7 identifier depending on and being determined using all of the data in the
8 data item and only [on] the data in the data item, whereby two identical
9 data items in the system will have the same identifier;

10 determining, using [said] the obtained component data
11 identifier, whether [said] the data item is present at [said] the destination;
12 and

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13 based on [said] the determining, providing [said] the
14 destination with [said] the data item only if [said] the data item is not
15 present at [said] the destination.

1 35. (Twice Amended) A method for determining whether a particular data
2 item is present in a data processing system, the method comprising:

3 (A) for each data item of a plurality of data items present in the system,

4 (i) determining a substantially unique identifier for the data item,
5 [said] the identifier depending on and being determined using all of the
6 data in the data item and only [on] the data in the data item, whereby two
7 identical data items in the system will have the same identifier; and

8 (ii) making and maintaining a set of identifiers of [said] the
9 plurality of data items; and

10 (B) for the particular data item,

11 (i) determining a particular substantially unique identifier for the
12 data item, [said] the identifier depending on and being determined using all
13 of the data in the data item and only [on] the data in the data item,
14 whereby two identical data items in the system will have the same
15 identifier; and

16 (ii) determining whether [said] the particular identifier is in [said]
17 the set of data items.

1 36. (Twice Amended) A method of backing up, of a plurality of data items
2 present in a data processing system, data items modified since a previous backup
3 time in the data processing system, the method comprising:

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- 4 (A) maintaining a backup record of identifiers of data items backed up
5 at the previous backup time; and
6 (B) for each of [said] the plurality of data items present in the data
7 processing system,
8 (i) determining a substantially unique identifier for the data item,
9 [said] the identifier depending on and being determined using all of
10 the data in the data item and only [on] the data in the data item,
11 whereby two identical data items in the system will have the same
12 identifier;
13 (ii) determining those data items of the plurality of data items
14 whose identifiers are not in the backup record; and
15 (iii) based on [said] the determining, copying only those data items
16 whose data identities are not recorded in the backup record.

- 1 38. (Twice Amended) A method of locating a particular data item at a
2 location in a data processing system, the method comprising:
3 (A) determining a substantially unique identifier for the data item, [said]
4 the identifier depending on and being determined using all of the data in
5 the data item and only [on] the data in the data item, whereby two
6 identical data items in the system will have the same identifier;
7 (B) requesting the particular data item by sending the data identifier of the
8 data item from the requestor location to at least one location of a plurality
9 of provider locations in the system; and
10 (C) on at least some of [said] the provider locations,
11 (a) for each data item of a plurality of data items at [said] the
12 provider locations,

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- 13 (i) determining a substantially unique identifier for the data item,
14 [said] the identifier depending on and being determined using all of
15 the data in the data item and only on the data in the data item,
16 whereby two identical data items in the system will have the same
17 identifier; and
18 (ii) making and maintaining a set of identifiers of data items,
19 (b) determining, based on [said] the set of identifiers, whether the
20 data item corresponding to the requested data identifier is present at
21 [said] the provider location; and
22 (c) based on [said] the determining, when [said] the provider
23 location determines that the particular data item is present at the
24 provider location, notifying [said] the requestor that the provider
25 has a copy of the given data item.

1 40. (Twice Amended) A method of locating a particular data item among a
2 plurality of locations, each of [said] the locations having a plurality of data items,
3 the method comprising:

4 determining, for the particular data item and for each data item of the
5 plurality of data items, a substantially unique identifier for the data item, [said]
6 the identifier depending on and being determined using all of the data in the data
7 item and only [on] the data in the data item, whereby two identical data items in
8 the system will have the same identifier; and

9 determining the presence of the particular data item in each of [said] the
10 plurality of locations by determining whether the identifier of the particular data
11 item is present at each of [said] the locations.

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1 51. (Twice Amended) A method of maintaining at least a predetermined
2 number of copies of a given data item in a data processing system, at different
3 locations in the data processing system, [said] the data processing system being
4 one wherein data is identified by a substantially unique identifier, [said] the
5 identifier depending on and being determined using all of the data in the data item
6 and only [on] the data in the data item, whereby two identical data items in the
7 system will have the same identifier, and wherein any data item in the system may
8 be accessed using only the identifier of the data item, the method comprising:
9 (i) sending, from a first location in the system, the data identifier of the
10 given data item to other locations in the system; and
11 (ii) in response to [said] the sending, at each of [said] the other locations,
12 (A) determining whether the data item corresponding to the data identifier
13 is present at the other location, and based on [said] the determining, and
14 (B) informing [said] the first location whether [said] the data item is
15 present at the other location; and
16 (iii) in response to [said] the informing from [said] the other locations, at
17 [said] the first location,
18 (A) determining whether [said] the data item is present in at least the
19 predetermined number of other locations, and based on [said] the
20 determining,
21 (B) when less than the predetermined number of other locations have a
22 copy of the data item, requesting some locations that do not have a copy of
23 the data item make a copy of the data item.

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Serial No. 08/425,160

In the Title:

Please replace the title with --DATA PROCESSING SYSTEM
USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA
ITEMS, WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME
IDENTIFIER--.

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above amendments and the following remarks.

By this Amendment, the title has been replaced as requested by the Examiner. Claims 1, 23, 30, 33-36, 38, 40 and 51 have been amended. Claims 1-53 remain pending in this application, of which claims 46-50 are withdrawn from consideration.

This invention relates to data processing systems and, more particularly, to data processing systems wherein data items are identified by substantially unique identifiers which:

- (A) depend on and
- (B) are determined using:
 - (a) all of the data in the data items and
 - (b) only the data in the data items.

A notable and significant property of this invention is that, in any particular system, two identical data items in the system will have the same identifier.

Claim 1, for example, recites an apparatus which includes identity means and existence means. The identity means determines, "for any of a plurality of data items in the system, a substantially unique identifier, the identifier being determined using all of the data in the data item and using only the data in the data item, whereby two identical data items in the system will have the same identifier." Claim 1 has been amended to clarify that the identifier depends on and is determined using:

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- (a) all of the data in the data item, and
- (b) only the data in the data item.

Claim 1 is further amended to clarify the property of the invention that, within the same system, two identical data items in the system will have the same identifier.

From the above at least the following should be clear:

- (1) the identifier for a data item does not depend on anything not in the data item ("only in the data item");
- (2) the identifier is not determined using anything except the data in the data item ("determined using . . . only the data in the data item");
- (3) there is nothing in the data item that is not used to determine the identifier, that is, everything in the data item is used to determine the identifier ("all of the data in the data item");
- (4) if two data items are identical (i.e., contain exactly the same data), they will have the same identifier. (Note, of course, that this does not imply the converse, i.e., that if two data items have the same identifier then they are identical.)
- (5) Given any data item, its identifier can be determined without reference or access to anything else.

As a consequence of the above, if the data item changes, the identifier for the data item should change (because it is the data in the data item that is used to determine the identifier). But if something other than the data item changes (e.g., if some data in another data item changes or if a file name of the data item or of another data item changes), then the identifier should not change (because it is only the data in the data item that is used to determine the identifier).

So, for example, if a data item were to be given an identifier (i.e., be identified or named) based on something else (other than only the data in the data item) such as, say, a file name of the data item, then that identifier would not depend on or be determined using

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"only the data in the data item." It may depend on the data in the data item, but it also depends on the file name of the data item. So if the filename of the data item changes then the identifier for the data item would change, even if the data in the data item did not change at all.

To summarize, if a system determines an identifier using all of the data in a data item as well as something else, then that system does not determine the identifier using only the data in the data item.

And, if a system determines an identifier using only some of the data in a data item, even if it uses nothing else to determine the identifier, that system does not determine the identifier using all the data in the data item.

And, if a system cannot determine an identifier for a data item without reference or access to some other data, the system does not determine the identifier using only the data in the data item.

Using the present invention, a substantially unique identifier is determined for a data item, regardless of any other names (identifiers) that data item may have. Further, the substantially unique identifier is determined for the data item, regardless of any names (identifiers) or the contents of any other data or data items.

Note that a data item may have other names, i.e., names other than the substantially unique identifier. For example, a data item may be a data file and may have a data file name given to it by a user. This file name is not part of the data item. The same data item with a user file name may be known internally in the system by yet another name (e.g., an i-node number in a Unix-like file system). This other name is also not part of the data item. All the data in a file can be changed and its user-supplied and system filenames can stay the same.

Suppose that two identical data items have different file names such as, for example, "a.c" and "e.c". In a system such that of the presently claimed invention the two data items, because they are identical, will have the same identifier.

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The Examiner continues to reject claims 1-4, 11-15, 18-20, 22-32, 35 and 38-45 under 35 U.S.C. § 102(b) as being anticipated by Gramlich.

The grounds for this rejection are respectfully traversed.

The factual determination of anticipation requires the disclosure in a single reference of every element of the claimed invention. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990) *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990), *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988), *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988), *Alco Standard Corp. v. TVA*, 808 F.2d 1490, 1 USPQ2d 1337 (Fed. Cir. 1986), *In re Marshall*, 578 F.2d 301, 198 USPQ 344 (CCPA 1978), *In re Arkley*, 455 F.2d 586, 172 USPQ 524 (CCPA 1972). Anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference. *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 138, 231 USPQ 644, 646 (Fed. Cir. 1986), *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). "For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988), emphasis added. Anticipation under section 102 is established only when a single prior art reference expressly describes or inherently contains each element of a claimed invention functioning in substantially the same way to produce substantially the same result. *Tate Engineering, Inc. v. United States*, 477 F.2d 1336, 1342, 178 USPQ 365 (Ct. Claims 1973).

The Examiner must identify wherein each and every facet of the claimed invention is disclosed in the applied reference. *Lindemann Maschinenfabrik v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

If prior art reference lacks an element of a claim at issue, the reference cannot anticipate. *Carman Indus., Inc. v. Wahl*, 724 F.2d 932, 938 (Fed. Cir. 1983).

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Of the claims rejected under Section 102, claims 1, 30, 35 and 38 and are independent. Applicants respectfully submit that Gramlich lacks elements recited in the claims and therefore Gramlich does not anticipate the claimed invention. In particular, as to claim 1, Gramlich lacks at least the claimed identity and existence means; as to claim 30, Gramlich lacks at least the claimed "determining" and "accessing;" as to claim 35, Gramlich lacks at least the claimed "determining a substantially unique identifier" and the "making and maintaining a set of identifiers;" and as to claim 38, Gramlich lacks at least the claimed "determining," and the "requesting."

Since Gramlich lacks at least these elements of the independent claims, Gramlich cannot anticipate the independent claims. And since Gramlich does not and cannot anticipate the independent claims, he cannot and does not anticipate the dependent claims.

So, what does Gramlich do?

As discussed in applicants' earlier response, Gramlich has two kinds of files, source files and database component files. "Each database component file contains information regarding the text contained in one source file." *Gramlich*, col. 3, lines 4-5. Also, "A database component file is created for each source file." *Gramlich*, col. 5, lines 66-67.

Gramlich's source files contain computer program source code, and his database component files contain information about the textual words (symbols) in the source files.

For each textual word . . . [in a source file], an entry in the database component file is provided containing symbol information . . . [comprising] the symbol name, symbol type and line number in the source file where the symbol is located.

Gramlich, col. 3, lines 8-13.

Gramlich determines the name of the database component file using two things.

First, Gramlich includes the source code file name in the database component file name and then Gramlich includes a hash value to make up the rest of the database component file name.

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Thus, Gramlich determines a name of one data item (the database component file) using (a) the name of a different data item (the source code file), and (b) a hash value.

Note that Gramlich's source files are not identical to his database component files. However, even if they were identical, Gramlich would still not use only the data in the data item since he also uses the source filename to determine the database component file name.

Since, in Gramlich, the name of the different data item (the name of the source code file) is concatenated to the hash and is not part of the data in the data item (i.e., it is not part of the database component file), Gramlich does not determine the name of the data item using only the data in the data item as claimed.

That is, as to claim 1, Gramlich lacks the claimed identity means
for determining . . . a substantially unique identifier,
said identifier being determined using and depending on all of
the data in the data item and only the data in the data item.

In Gramlich the identifier is determined (a) using the data in another data item (the source file) and (b) using data other than the data in the data item (the name of the source file).

Similarly, as to the method claims 30, 35 and 38 (and their dependents), Gramlich does not teach or in any way suggest the claimed:

determining a substantially unique identifier for the data item,
said identifier being determined using and depending on all of
the data in the data item and only the data in the data item.

Accordingly, Gramlich lacks at least one claimed element and therefore cannot anticipate any of these claims or their dependents.

Still further, Gramlich lacks the property that two identical data items in the system will have the same identifier. Consider the example noted above (at page 10), of two identical data items have different file names such as, for example, "a.c" and "e.c". Gramlich teaches (Fig. 2 and its corresponding description) that the database component files corresponding to the files (data items) named "a.c" and "e.c" will have names "a.c*.bd" and

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"e.c.*.bd", where "*" is some hash value. That is, even if the contents of files "a.c" and "b.c" are identical, in Gramlich they will cause different file names to be generated for their corresponding database component files. In a system such as that of the presently claimed invention the two data items, designated "a.c" and "b.c", if they are identical, will have the same identifier, regardless of their user-given file names.

As well as the above, there are other elements of the claims which are not taught or suggested by Gramlich. Some of these are discussed below:

Claim 2 depends from claim 1.

For example, further as to claim 2, there is nothing in Gramlich to teach or in any way suggest the claimed "local existence means for determining whether an instance of a particular data item is present at a particular location in the system, based on the identifier of the data item." First, as noted above, Gramlich lacks the identifiers of the present invention. Accordingly, there is no way that Gramlich could determine if an item is present using such an identifier. Further, Gramlich has no notion of "local" or "location in the system," so he cannot have any sort of "local existence means." Inasmuch as Gramlich determines whether items are present, his decision is binary. That is, the item would either be there or not. There is nothing in Gramlich about items "being present at a particular location."

Claim 3 depends from claim 2.

Similarly, as to claim 3, since Gramlich lacks the identifiers of this invention and he lacks the local existence means, he must also lack such a means that "determines whether a particular data item is present at a particular location in the system by examining the identifiers of the plurality of data items at said particular location in the system."

Claim 4 depends from claim 2.

And similarly as to claim 4, since Gramlich lacks the identifiers of this invention and he lacks the local existence means, he must also lack anything like the claimed data associating means and the claimed access means. As recited in claim 4, the associating

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means makes and maintains, for a data item in the system, "an association between the data item and the identifier of the data item."

To show, supposedly, where Gramlich teaches the data associating means the Examiner refers to the following:

generating an index file for at least one database component file,
said index file comprising a listing of symbols and the name of
the database component file the symbol occurs in.

Gramlich, col. 17, lines 38-41 (this is a step in Gramlich's claim 2).

Gramlich does not associate a data item with the identifier of the data item, Gramlich associates symbols in a database component file with database component file names. That is, Gramlich associates data in data items with file names.

For the access means of claim 4, the Examiner refers to the Gramlich, col. 14, lines 45-50 (steps in Gramlich's claim 3). However, since Gramlich lacks the association of the present invention, he must also lack the access means which uses the claimed association.

Claims 11, 15 and 23 depend from claim 4.

Claim 11 recites an apparatus wherein "a location is a computer among a network of computers," the apparatus having a requesting means which requests data items at a current location from a remote location. In other words, in the invention of claim 11, the requesting means requests data items at a current computer from a remote computer in a network of computers.

Gramlich says nothing about a network of computers, and is silent about any kind of requesting means.

The Examiner relies on Gramlich, col. 18, lines 20-21, supposedly to anticipate the subject matter of claim 11. That portion of Gramlich, part of his claim 6, recites:

means for performing a query for at least one symbol
comprising:
means for reading the index file for the occurrence of the
symbol.

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Applicants fail to see anything in the cited portion of Gramlich (or anywhere else in Gramlich) which teaches or suggests anything about a network of computers or about a requesting means, as claimed, which requests an item from a remote location in such a network. Gramlich is not about networks! Accordingly, Gramlich does not anticipate claim 11.

Claim 15 depends from claim 11 and is therefore also patentable over Gramlich. Further, since Gramlich lacks any notion of a network of computers and of accessing data on such network, he clearly lacks the claimed transparent access means "for accessing a data item from one of several" computers among a network of computers.

Claim 23 depends from claim 11 and is therefore also patentable over Gramlich for the reasons given above.

Claim 23 recites an apparatus which includes verifying means for verifying the integrity of a data item obtained from the requesting means in response to providing the requesting with a particular data identifier. The verifying means confirms that a data item obtained from the requesting means is the same data item as the data item requested. The verifying means invokes the identity means to determine the data identifier of the obtained data item, then it compares determined data identifier with the particular (requested) data identifier to verify the obtained data item.

Gramlich neither teaches nor suggests any such verifying means.

First, as noted above, there's nothing in Gramlich about requesting or getting data items over a network as recited in the claim.

Second, Gramlich does not teach or in any way suggest verifying a data item by determining its identifier. In fact, other than Gramlich's statement that "[i]t is an object . . . to provide a means for checking the integrity of the database with the current version of the source file," *Gramlich*, col. 2, lines 29-32, Gramlich provides no teaching at all about verifying integrity. What Gramlich seems to do is to check whether a database component file in the database matches the current version of the source file. And the reason he has to

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do this is precisely because he does not have the same naming scheme as the present invention. For if Gramlich generated the name of a file using all of the data in the file and only the data in the file then the name of the file would be an indication of which file to use! It is because Gramlich uses only some of the information in the file and because he uses other information external to the file and because he uses all of this to name another file that he has to do the kind of verification he talks about.

In this invention on the other hand, the verification checks that a particular data item obtained is in fact the requested data item. It may be that the wrong data item was sent, that the wrong data item as received or simply that the data item got corrupted while being sent or received. In any case, once a data item is obtained, the system can determine the identifier of the received data item and check that the identifier matches the one requested. Gramlich does not do this.

Claim 12 depends from claim 2.

Gramlich's file names are somewhat akin to the contextual names of the data items referred to in claim 12. But, as stated repeatedly above, they are in no way like the identifiers of this invention. The Examiner seems to want it both ways. If the identifiers of this invention are the same as Gramlich's file names, then where does Gramlich teach contextual names? Since Gramlich's file names are like the contextual names of this invention, there would be no reason for him to associate the contextual names with themselves. Thus, as to claim 12, Gramlich is silent about the claimed context means and referencing means.

Claims 13 and 14 depend from claim 12.

Gramlich lacks the assignment means of claim 13 and, since he also lacks the context means, he cannot have any assignment means which invokes the context means. As to claim 14, Gramlich lacks at least the contextual name access means.

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Claim 18 depends from claim 1.

In some case, e.g., as recited in claim 18, at least some of the data items are compound data items, each compound data item including at least some component data items in a fixed sequence. Here the "identity means determines the identifier of a compound data item based on each component data item of the compound data item."

Gramlich has absolutely no notion of identifying (naming) compound data items. All that Gramlich teaches is source files, database component files, and file directories. Directories are the only compound data items in Gramlich, and he has no notion at all of naming them. If anything, the directories are given arbitrary and random user-selected names (such as "Project", "Source1" and "Source2" in Gramlich's Figure 2). The Examiner has shown nowhere in Gramlich where the naming of compound data items is either taught or in any way suggested--let alone where a compound data item is named "based on each component data item of the compound data item."

For claim 18 the Examiner simply says that the "limitations . . . have already been discussed in the preceding paragraph." Applicants fail to see anywhere in the Action where the limitations of claim 18 (or its dependent claims 19-22) are discussed.

Claim 19 depends from claim 18.

As noted, Gramlich does not teach anything about naming compound data items and he has no notion of compound data items which "are files and said component data items are segments," as recited in claim 19. And since he lacks the claimed segments, he does not and cannot determine "the identifier of a file based on the identifier of each data segment of the file." Again the Examiner has shown nowhere in Gramlich where segments are taught, where files are made up of segments, or where the names of files are determined based on the segment names.

Claim 20 depends from claim 18.

As noted above, Gramlich does make use, in an unimportant or peripheral way, of file directories. However, as noted above, the directories in Gramlich are given arbitrary

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names by the user, and the names are not based on the contents of the directories. Gramlich does not in any way teach or suggest naming a directory "based on each file and subordinate directory within the given directory," as recited in claim 20.

Claim 22 depends from claim 18.

In some data processing systems, it is desirable to copy compound data items (e.g., compound files made up of segments or directories made up of other directories and files) from one location to another in the system. Obviously there is some cost associated with such copying and so it is desirable to avoid unnecessary copy operations. Accordingly, in one aspect, as recited in claim 22, this invention provides for "local existence means for determining whether a particular data item is present at a particular location in the system, based on the identifier of the data item." The invention of claim 22 further recites "compound copy means" which uses the local existence means to determine when and whether to copy the components of a compound data item.

The only kind of compound data item in Gramlich is a file directory, and this item is peripheral to Gramlich's operation. Gramlich is completely silent about any sort of data item copying, and neither teaches or suggests anything at all about copying compound data items. Still further, there is nothing in Gramlich to teach or in any way suggest the claimed compound copying means which only copies the components which are not present at the destination location. The Examiner has given no indication of where in Gramlich this conditional compound copying is supposedly taught.

Claim 25 depends from claim 3.

As noted above, Gramlich is silent as to the naming of compound data items. Accordingly, he has no notion of the apparatus claimed in claim 25 "wherein the identity means determines the identifier of a compound data item based on the identifier of each component data item of the compound data item."

Claim 27 depends from claim 25.

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And since Gramlich is silent about naming compound data items, he has no notion, as recited in claim 27, of naming such compound data items as files where the component data items are segments, and "wherein the identity means determines the identifier of a file based on the identifier of each data segment of the file."

Claim 28 depends from claim 25.

As noted above, Gramlich teaches nothing about copying any data, let alone about copying compound data items. And he definitely says nothing about copying such data items only if they are not present at their intended destination, as determined using their identifiers.

Claim 26 depends from claim 3.

Claim 26 recites a context associating means, a means for obtaining the identifier of a data item and a logical copy means. As discussed above (at page 15 in the discussion of claim 4), Gramlich does not have anything like the claimed context associating means. Further, Gramlich lacks the claimed obtaining means and the claimed logical copy means. The Examiner has shown nowhere in Gramlich where data item copying is taught or in any way suggested.

Claim 29 depends from claims 1-28.

As to claim 29, there is nothing at all in Gramlich about database records, messages, data segments, data blocks, directories or instances of object classes.

Claims 31 and 32 depend from claim 30.

As noted above, Gramlich has no notion of associations between data items and identifiers or of assimilation of new data items into a system.

Claims 39-45 are patentable for at least the reasons stated above.

Summary

Applicants have shown that each of the rejected claims has at least one element which is not disclosed in Gramlich. Applicants respectfully remind the Examiner that anticipation under Section 102 requires that all of the elements and limitations of the claim be found within a single prior art reference. Not only must the elements be shown, they must be

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identically shown. *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

The Examiner has failed, as required by *Lindemann Maschinenfabrik v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984), to identify wherein each and every facet of the claimed invention is disclosed in the applied reference. This is, of course, not surprising, since Gramlich does not teach or suggest the claimed invention.

In view of the above, applicants respectfully submit that Gramlich does not anticipate the presently claimed invention and withdrawal of this rejection is respectfully requested.

The Examiner continues to reject claims 5-10, 16, 17, 21, 33, 34, 36, 37 and 51-53 under 35 U.S.C. § 103 as being unpatentable over Gramlich in view of Konrad.

The grounds for this rejection are respectfully traversed.

First, as clearly shown above, claims 1 and 2 are patentable over Gramlich. In particular, Gramlich lacks the identity means and the existence means of claim 1 and it further lacks the local existence means of claim 2. Konrad does not overcome the deficiencies in Gramlich, and therefore no proposed combination of Gramlich with Konrad, inasmuch as such a combination is possible, would produce the invention of claims 1, 2 or their dependents.

Similarly, as to claims 33 and 35, any proposed combination of Gramlich with Konrad would lack at least the "determining a . . . unique identifier," and there is nothing in Gramlich or Konrad about a data processing system "being one wherein data is identified by a substantially unique identifier, said identifier being determined and depending on all of the data in the data item and only the data in the data item, wherein two identical data items have the same identifier, and wherein any data item in the system may be accessed using only the identifier of the data item."

Konrad relates to a database backup and recovery system. More particularly, Konrad relates to a database system which uses two almost parallel databases so that if one of the databases becomes inaccessible then the other backup database can be used instead. The way

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that Konrad does this is to maintain an audit trail of all updates to his primary database. A recovery processor continuously reads the audit information and updates the backup database accordingly. *Konrad*, Abstract.

Konrad has nothing really to do with data backup other than making one backup copy of an entire database.

Applicants respectfully submit that the claims are further patentable over the proposed combination of Gramlich and Konrad for at least the following reasons.

Claim 5 depends from claim 2.

In one aspect of this invention, as recited in claim 5, the invention includes duplication means which copies data from a source to a destination in the data processing system. Importantly, the copying takes place by providing said destination with the data item only if it is determined using the data identifier that the data item is not present at the destination. Notably there are two features recited in the claim. First the data is only copied if it is not present at the destination and second, the determination as to whether it is present at the destination is made using the data identifier.

As noted repeatedly above, since neither Gramlich nor Konrad teach anything like the identifier of the present invention, they do not and cannot determine the presence of a data item at a location using such an identifier.

In particular, there is nothing in Konrad to teach or in any way suggest copying data items at all, let alone copying from one place to another only if the data item is not present at the second location.

The Examiner cites the following supposedly to support his rejection over Konrad:

Information relating to updates to the primary data base is saved to intermediate storage in what is logically referred to as the audit trail.

Konrad, col. 4, lines 48-51.

Backup database 48 is a copy of Primary Data Base 34 made at a particular point in time.

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Konrad, col. 7, lines 37-39.

But the Examiner has shown nothing in *Konrad* to show the conditional copying of the present invention which provides the "destination with the data item only if . . . the data item is not present at the destination." And since *Konrad* does not do a conditional copy, there is no way that he does it based on the identifier.

Claim 10 depends from claim 2.

In one aspect, such as recited in claim 10, this invention includes a "remote existence means for determining whether a data item is present at a remote location in the system." *Konrad* recommends storing his backup database at a remote location. *Konrad*, col. 5, lines 10-14. However, there is nothing in *Konrad* about determining whether a data item is present at the remote location. All that *Konrad* does is use the entire database from the remote location in the event of a crash of his primary database. In fact, not only does *Konrad* not determine whether data is stored at the remote location, he acknowledges that the databases are not synchronized and so, in the event that he has to use the backup database, he has to synchronize it based on the audit trail. *Konrad*, col. 5, lines 15-29.

Claim 6 depends from claim 4.

As recited in claim 6, the system includes "assimilation means for assimilating a new data item into the system." This is not taught in *Konrad*. The Examiner cites the following from *Konrad's* claim 1 (col. 14, lines 7-10) supposedly to support *Konrad* teaching the assimilation means:

receiving transactions to process against the primary
database;
updating the primary database according to said
transaction.

Konrad relates to a database system. As such, the transactions could potentially include any sort of standard database transactions such as deletion, insertion or update or records. However, *Konrad* is silent about using any form of identity means to associate identifiers with data items.

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Claims 7-9 depend from claim 4.

As recited in claim 7, this invention includes a duplication means which provides a destination with a data item only if a local existence means determines that no instance of the data item is present at the destination. This determination is based on the identifier of the data item.

Konrad neither teaches nor suggests any such conditional duplication. In fact Konrad teaches no duplication.

As to claim 8, there is nothing in Konrad to teach or in any way suggest the backup means for making copies of data items in the system, the backup means maintaining a backup record of identifiers of data items backed up, and invoking duplication means to copy only those data items whose data identifiers are not recorded in the backup record."

First, as already noted, Konrad lacks the claimed duplication means. The Examiner relies simply on Konrad's use of a backup database to show the backup means of this invention. However, Konrad makes only one copy of the primary database and this copy is not made conditionally "to copy only those items . . . not in the backup record."

Backup Data Base 48 is a copy of Primary Data Base 34 made
at a particular point in time.

Konrad, col. 7, lines 37-39.

Konrad copies the entire primary database and then tries to keep the copy in synch with the primary using the audit trail. Konrad does not do any selective copying.

Claim 9 depends from claim 8 and further includes recovery means for retrieving a data item previously backed up by the backup means. Konrad does not do backup or retrieval. Konrad makes one backup copy of his primary database. Then, if the primary database becomes inaccessible, he reverts to the backup database. He does not retrieve "a data item," he just uses the backup database. And, since he does not retrieve any items, he does not and cannot do so based on the identifier of the data items.

Claim 21 depends from claim 11.

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In one aspect of this invention, as recited in claim 21, the invention includes means for advertising a data item from a location in the system to at least one other location in the system. Recall that, as recited in claim 11 from which claim 21 depends, a location is a computer among a network of computers. The advertising means provides each of the other locations (computers) with the data identifier of the data item. It provides the data item to only those locations (computers) that request the data item in response to their getting the data identifiers.

Konrad teaches or suggests nothing about such advertising. There is absolutely nothing in Konrad about sending identifiers from one location to another, let alone about the second location then requesting a data item based on that sending.

The Examiner cites the following from Konrad, supposedly to show the advertising means:

Depending upon the storage requirements of the Primary Data Base 34, part or all of the data base may be loaded in the main storage units . . . of Processing Complex 18 for quick access.

Konrad, col. 6, lines 44-47.

Applicants find nothing in the cited portion of Konrad or anywhere else in Konrad to teach or suggest the claimed advertising means. All that the cited portion says is that if all of the primary database can fit in memory then it is loaded there for quick access. There's nothing about providing other locations with identifiers of data items and nothing about conditional providing of data items to locations only if the locations request the items. The main storage of Konrad is passive in the sense that it makes no decisions as to what is stored in it.

Claim 17 depends from claim 15.

The invention of claim 15 includes context means, context copy means and transparent referencing means. The context means makes and maintains a context association between a contextual name of a data item in the system and the identifier of the data item. The context copy means copies a data item from a source location to a destination location,

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given the contextual name of the data item, by copying only the context association between the contextual identifier and the data identifier from the source location to the destination location. The transparent referencing means obtains a data item from one of several locations the system given a contextual name for the data item. It invokes the context association to determine the data identifier of a data item given a contextual name, and invokes the transparent access means to access the data item from one of several locations given the identifier of the data item.

Konrad teaches none of the elements recited in claim 17. For one thing, Konrad does not teach anything about getting a data item from anywhere, let alone from "one of several locations . . . given a contextual name." Konrad only has two locations where data is stored--the primary database and the backup database. He only uses the backup database if the primary database fails. And he doesn't use either database to get data based on a contextual name, let alone using the identifier of a data item.

Claims 16, 33, 34, 36, 37 and 51-53 are patentable for at least the reasons stated above.

Accordingly, withdrawal of this rejection is respectfully requested.

Comment on Examiner's Remarks

In response to applicants' Amendment of March 12, 1997, the Examiner stated that:

applicants seem to be arguing that Gramlich's identifiers depend only on the source files and not on the database files.
Therefore, they cannot depend on only and all of the data in the data items, as required by the applicant's claims.

Paper of 5/30/97, pg. 8.

No! Applicants never said or meant to say that "Gramlich's identifiers depend only on the source files." Applicants never said this because its not true. Gramlich's identifiers depends on some of the contents of the source files and on the names of the source files.

And, with the claims amended to clarify that in this invention the identifiers are determined using the data in the data items, this further distinguishes over Gramlich.

APPLICATION of FARBER, et al
Serial No. 08/425,160

The Examiner is missing a fundamental point. Gramlich has two kinds of files (data items) that are of interest here. The first kind are source files which the user names, e.g., "e.c". The second type of files (data items) are database component files which the system names. The database component file names are derived from some of the contents of a source file and from the name of the source file. So, Gramlich has an identifier, a database component file name, which is not and cannot be determined from only the database component file. That is, Gramlich's identifier is not and cannot be determined from the data item.

Applicants note, however, that even if Gramlich's database file names did depend on the data in the database files (which they do not), and even if they depended on all of the data in the database files (which they do not), they would still not depend on only the data in the database files. Gramlich's database file names are formed from some of the contents of a source file and from the name of the source file.

Preferably, the name of the [database component] file is generated by computing a hash value from the sum of the contents of the [source] file and concatenating the hash value to the name of the [source] file.

Gramlich, col. 2, lines 52-55.

Gramlich generates a name for a database component file (one file) from some of the data in a source file (another, different file), along with the name of the source file (the other, different file).

Thus, even if Gramlich did use the contents of the database component file to give that file its name, which he clearly does not, the database component file name would still be formed using some other information obtained from some other place. Specifically, the file name would be formed using the file name of another file. So Gramlich does not use only the data in the data item to name a data item. Arguably he may use some of the data in the data item, and then only because that data happens to be the same as data in the source file from which the name is actually derived.

APPLICATION of FARBER, et al
Serial No. 08/425,160

The Examiner further states that

Gramlich details a unique name that is dependent upon the contents of the data items such that the unique names of the corresponding database files change when the contents of the source file change.

Paper of 5/30/97, pg. 8, emphasis added.

However, it is irrelevant that the data base file name could change when the contents of the source file change. That is not what is claimed. The claims recite that the data item's identifier is dependent "on all of the data in the data item and only the data in the data item." This is just not the case in Gramlich. As repeatedly noted, in Gramlich the identifier is not dependent on all of the data and its not dependent on only the data.

The Examiner goes on to say that

applicant's attempt to completely separate the source files from the database files is improper. The source files are rather computer codes for the database files. One of ordinary skill in the art would never separate the two. The ordinary skilled artisan would realize that source files can be used as back ups when the database files are defective. Since each source file is used to generate a corresponding database file, the unique name to a source file is therefore the same to the corresponding database file (DB files cannot exist without source files). Thus, it would be redundant for Gramlich to specify unique identifiers for the source files and additional ones for the database files since unique identifiers for source files are inherently the same identifiers for the database files. Therefore, Gramlich's unique names do depend on only and all of the data in the data items.

Paper of 5/30/97, pg. 8.

There are a number of things wrong with the above.

First, it is irrelevant whether or not the source or database files would be stored separately. The issue is that each of them is a separate data item, and each of them has a name, and for neither of them is the name dependent on all of the data and only the data in the file.

APPLICATION of FARBER, et al
Serial No. 08/425,160

As to the Examiner's assertion that "[o]ne of ordinary skill in the art would never separate the two," why does Gramlich say that there is "a need to insure [sic] that the database component files . . . match the current version of the source files." *Gramlich*, col. 2, lines 3-6? Precisely because the files get out of synch. In fact, the whole reason for Gramlich's naming scheme is to be able to match source files with their corresponding database component files. If, as the Examiner would have it, the files were never separate, then there would be no reason to have a special naming scheme.

Applicants question the Examiner's statement that "the unique name to a source file is therefore the same to the corresponding database file." Likewise, when the Examiner says "it would be redundant for Gramlich to specify unique identifiers for the source files and additional ones for the database files since unique identifiers for source files are inherently the same identifiers for the database files." Gramlich's source file name is not the same as the corresponding database file name. So what is the Examiner saying? That the database component file name includes the source file name? Well this is what applicants have been arguing. The database file name is determined from something other than the contents of the database file.

Applicants submit herewith corrected PTO Forms 1449 providing publication dates for all the documents cited in the Information Disclosure Statements and thank the Examiner for pointing out this omission.

APPLICATION of FARBER, et al
Serial No. 08/425,160

Applicants respectfully submit that this application is in condition for
allowance, and an early Action allowing the claims is solicited.

Respectfully submitted,

CUSHMAN DARBY & CUSHMAN
INTELLECTUAL PROPERTY GROUP OF
PILLSBURY MADISON & SUTRO, L.L.P.

By 

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213987

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE PATENT APPLICATION

Inventor(s): FARBER, et al
 Appl. No.: 08 425,160
Series Code ↑ Serial No. ↑

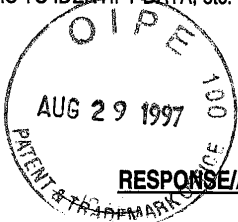
Group Art Unit 2307
 Examiner: HOMERE, J.
 Atty. Dkt. 213987
M# Client Ref

Filed: April 11, 1995
 Title: DATA PROCESSING SYSTEM USING SUBSTANTIALLY
 UNIQUE IDENTIFIERS TO IDENTIFY DATA, etc.

(Our Deposit Account No. 03-3975)
 (Our Order No. 7018 213987)
C# M#

Hon. Commissioner of Patents
 and Trademarks
 Washington, D.C. 20231

Date: August 29, 1997
 "RESPONSE UNDER 37 CFR
 1.116, EXPEDITED PROCEDURE
 EXAMINING GROUP 2307"



Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated herewith by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. "Small Entity" statement(s) filed <input checked="" type="checkbox"/> previously <input type="checkbox"/> herewith <small>(No.)</small>		Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code
2. Total Effective Claims		97	**minus 102	0	x \$22/\$11 =	+ 0	103/203
3. Independent Claims		11	***minus 11	0	x \$80/\$40 =	+ 0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application)					+ \$260/\$130 =	+ 0	104/204
5. Original due Date: AUGUST 30, 1997		<input type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached			(1 mo) (2 mos) (3 mos)	\$110/\$55 = \$390/\$195 = \$930/\$465 =	+ 0		115/215 116/216 117/217
7. Enter any previous extension fee paid since above original due date and subtract					-		
8. Extension Fee Attached						+ 0	
9. If Terminal Disclaimer attached, add Rule 20(d) official fee					+ \$110/\$55 =	+ 0	148/248
10. If IDS attached requires Official Fee,					+ \$230 =	+ 0	126
or if Rule 97(d) Petition					+ \$130 =		122
11. After-Final Request Fee per rules 129(a) and 17(r)					+ \$770/385 =	+ 0	146/246
12. No. of additional inventions for examination per Rule 129(b).....					x \$770/385 ea =	+ 0	149/249
13. Petition fee for							
14. TOTAL FEE ENCLOSED =						\$0	

15. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".
 16. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.
 17. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown in the heading hereof, for which purpose a duplicate copy of this sheet is attached.
 This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Cushman Darby & Cushman
 Intellectual Property Group of
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 By: Atty: Dale S. Lazar
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NOTE: File this cover sheet in duplicate with PTO receipt (CDC-103A) and attachments

Form PTO-1449
(REV. 2-83)

Cushman Version

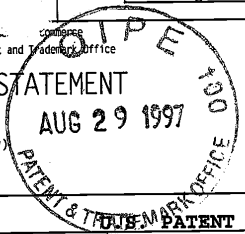
U.S. Department of Commerce
Patent and Trademark Office

DATE: August 2, 1995

Sheet 1 of 5 #16

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)



ATTY. DOCKET # 213987 /

GROUP ART UNIT

/ Client Ref.

UNKNOWN

APPLICANT (inventor(s))
FARBER, et al

EXAMINER
UNKNOWN

APPLN. NO.
0 8 /425,160

FILING DATE
APRIL 11, 1995

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
AR	3 6 6 8 6 4 7	6/1992	EVANGELISTI ET AL			
BR	4 2 1 5 4 0 2	7/1980	MITCHELL ET AL			
CR	4 2 9 0 1 0 5	9/1981	CICHELLI ET AL			
DR	4 3 7 6 2 9 9	3/1983	RIVEST			
ER	4 4 0 5 8 2 9	9/1983	RIVEST ET AL			
FR	4 4 1 2 2 8 5	10/1983	NECHES ET AL			
GR	4 4 1 4 6 2 4	11/1983	SUMMER, JR. ET AL			
HR	4 4 4 1 1 5 5	4/1984	FLETCHER ET AL			
IR	4 4 6 4 7 1 3	8/1984	BENHASE ET AL			
JR	4 5 7 7 2 9 3	3/1986	MATICK ET AL			
KR	4 6 4 2 7 9 3	2/1987	MEADEN			
LR	4 6 9 1 2 9 9	9/1987	RIVEST ET AL			
MR	4 7 2 5 9 4 5	2/1988	KRONSTADT ET AL			

FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
				Enclosed	No			Enclosed	No
NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

- TR WitoId Litwin et al, Linear Hashing for Distributed Files, ACM SIGMOD, May, 1993 pp. 327-336.
- UR Ming-Ling Lo, et al, ON OPTIMAL PROCESSOR ALLOCATION TO SUPPORT PIPELINED HASH JOINS, ACM SIGMOD, pp. 69-78, 5/93
- VR Thomas A. Berson, Differential Cryptanalysis Mod 2³² with Applications to MD5, pp. 69-81, 1992

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if citation 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.

DATE: August 2, 1995

Sheet 2 of 5

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INFORMATION DISCLOSURE STATEMENT

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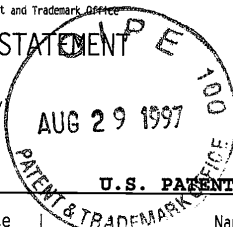
UNKNOWN

APPLICANT (inventor(s))
FARBER, et al

EXAMINER
UNKNOWN

APPLN. NO.
08 / 425,160

FILING DATE
APRIL 11, 1995



U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
	AR 4 7 7 3 0 3 9	9/1988	ZAMORA			
	BR 4 8 8 7 2 3 5	12/1989	HOLLOWAY ET AL			
	CR 4 8 8 8 6 8 1	12/1989	BARNES ET AL			
	DR 4 4 9 0 7 8 2	12/1984	DIXON ET AL			
	ER 4 9 7 2 3 6 7	11/1990	BURKE			
	FR 4 9 2 2 4 1 4	5/1990	HOLLOWAY ET AL			
	GR 5 0 5 7 8 3 7	10/1991	COLWELL ET AL			
	HR 5 0 0 7 6 5 8	12/1991	BENDERT ET AL			
	IR 5 0 2 5 4 2 1	6/1991	CHO			
	JR 5 1 2 9 0 8 1	7/1992	KOBAYASHI ET AL			
	KR 5 1 2 9 0 8 2	7/1992	TIRFING ET AL			
	LR 5 1 4 4 6 6 7	9/1992	POGUE, JR. ET AL			
	MR 5 1 7 9 6 8 0	1/1993	COLWELL ET AL			

FOREIGN PATENT DOCUMENTS

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NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

TR	William Perrizo, et al., Distributed Join Processing Performance Evaluation, 1994 Twenty-Seventh Hawaii International Conference on System Sciences, Vol II, pp. 236-244
UR	A concurrency Control Mechanism based on Extendible Hashing for Main Memory Database Systems, Vijay Kumar, pp. 109-113, ACM, Vol. 3, 1989
VR	Birgit Pfitzmann, Sorting Out Signature Schemes, November 1993, 1st Conf. Computer & Comm. Security '93 pp. 74-85

EXAMINER

DATE CONSIDERED

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DATE: August 2, 1995

Sheet 3 of 5

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(REV. 2-83)

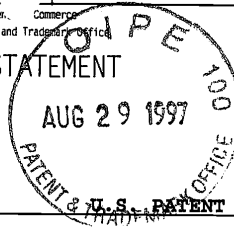
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213987 /

GROUP ART UNIT

**INFORMATION DISCLOSURE STATEMENT
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(Use several sheets if necessary)



M# / Client Ref.

UNKNOWN

APPLICANT (inventor(s))
FARBER, et al

EXAMINER
UNKNOWN

APPLN. NO.
08 / 425,160

FILING DATE
APRIL 11, 1995

U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
	AR 5 2 0 2 9 8 2	4/1993	GRAMLICH ET AL			
	BR 5 3 5 7 6 2 3	10/1994	MEGORY-COHEN			
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FOREIGN PATENT DOCUMENTS

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	NR								
	OR								
	PR								
	QR								
	RR								
	SR								

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

TR	Bert dem Boer, et al., Collisions for the compression function of MD, pp. 292-304, 1994
UR	Sakti Pramanik, et al., Multi-Directory Hashing, 1993, Info. Sys., Vol. 18, No. 1, pp.63-74
VR	Murlidhar Koushik, Dynamic Hashing With Distributed Overflow Space: A File Organization With Good Insertion Performance, 1993, Info. Sys., Vol. 18, No. 5, pp. 299-317

EXAMINER

DATE CONSIDERED

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DATE: August 2, 1995

Sheet 4 of 5

Form PTO-1446
(REV. 2-83)

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ATTY. DOCKET NO.
213987 /

GROUP ART UNIT

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**
(Use several sheets if necessary)

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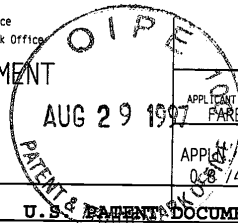
UNKNOWN

APPLICANT (inventor(s))
FARBER, et al

EXAMINER
UNKNOWN

APPL. NO.
08 / 425.160

FILING DATE
Apr 11, 1995



U.S. PATENT DOCUMENTS

*Examiner's Initials	Document Number	Date Mo/Yr	Name (Family Name of First Inventor)	Class	Subclass	Filing Date If Appropriate
AR						
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FOREIGN PATENT DOCUMENTS

	Document Number	Date Mo/Yr	Country	English Abstract		Class	Subclass	Translation Readily Available	
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NR									
OR									
PR									
QR									
RR									
SR									

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.)

TR	Witold Litwin, et al., LH*-Linear Hashing for Distributed Files, HP Labs Tech. Report No. HPL-93-21 June 1993 pp 1-22								
UR	Yuliang Zheng, et al., HAVAL - A One-Way Hashing Algorithm with Variable Length of Output (Extended Abstract), pp. 83-105, Advances in Cryptology, AUSCRYPT '92, 1992								
VR	Chris Charney and Josef Pieprzky, Linear Nonequivalence versus Nonlinearity, Pieprzky, pp.156-164, 1993								

EXAMINER

DATE CONSIDERED

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DATE: August 2, 1995

Sheet 5 of 5

Form PTO-1449 (REV. 2-83)

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ATTY. DOCKET NO. 213987 /

M# / Client Ref.

GROUP ART UNIT

UNKNOWN

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)

APPLICANT (inventor(s)) CARBER, et al

EXAMINER UNKNOWN

AUG 29 1997

APPL. NO. 08/425,160

FILING DATE April 11, 1995

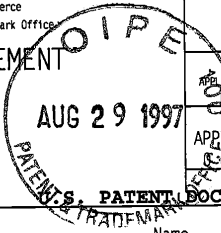


Table with columns: *Examiner's Initials, Document Number, Date Mo/Yr, Name (Family Name of First Inventor), Class, Subclass, Filing Date If Appropriate. Rows include AR, BR, CR, DR, ER, FR, GR, HR, IR, JR, KR, LR, MR.

Table with columns: Document Number, Date Mo/Yr, Country, English Abstract Enclosed, English Abstract No, Class, Subclass, Translation Readily Available Enclosed, Translation Readily Available No. Rows include NR, OR, PR, QR, RR, SR.

OTHER DOCUMENTS (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, Etc.) Rows include TR, UR, VR with references to Zhiyu Tian et al., G. L. Friedman, and H. Goodman.

EXAMINER | DATE CONSIDERED

*EXAMINER: Initial if citation 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.

DUPLICATE

08/425,160



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/425,160	04/11/95	FARBER	213987

24M1/0908

CUSHMAN DARBY AND CUSHMAN
1100 NEW YORK AVENUE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

EXAMINER HOMERE, J	
ART UNIT 2307	PAPER NUMBER 17

DATE MAILED: 08/08/97

Below is a communication from the EXAMINER in charge of this application

COMMISSIONER OF PATENTS AND TRADEMARKS

ADVISORY ACTION

THE PERIOD FOR RESPONSE:

- a) is extended to run _____ or continues to run 3 months from the date of the final rejection
- b) expires three months from the date of the final rejection or as of the mailing date of this Advisory Action, whichever is later. In no event however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

- Appellant's Brief is due in accordance with 37 CFR 1.192(a).
- Applicant's response to the final rejection, filed 8/29/97 has been considered with the following effect, but it is not deemed to place the application in condition for allowance:

- 1. The proposed amendments to the claim and/or specification will not be entered and the final rejection stands because:
 - a. There is no convincing showing under 37 CFR 1.116(b) why the proposed amendment is necessary and was not earlier presented.
 - b. They raise new issues that would require further consideration and/or search. (See Note).
 - c. They raise the issue of new matter. (See Note).
 - d. They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.
 - e. They present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: The Proposed amendment to the claims would require further consideration and possibly a new search.

- 2. Newly proposed or amended claims _____ would be allowed if submitted in a separately filed amendment cancelling the non-allowable claims.
- 3. Upon the filing an appeal, the proposed amendment will be entered will not be entered and the status of the claims will be as follows:

Claims allowed: _____
Claims objected to: _____
Claims rejected: 1-45, 51-53

However;

- Applicant's response has overcome the following rejection(s): _____

- 4. The affidavit, exhibit or request for reconsideration has been considered but does not overcome the rejection because _____
- 5. The affidavit or exhibit will not be considered because applicant has not shown good and sufficient reasons why it was not earlier presented.

- The proposed drawing correction has has not been approved by the examiner.
- Other

[Handwritten signature]

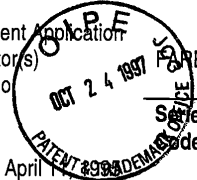
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of Inventor(s) BARBER, et al
Appln. No. 08 | 425,160
Serial No. ↑
Series 08
Side ↑

Group Art Unit: 2307
Examiner: HOMERE, J.
Atty. Dkt. 213987
Old M# | Client Ref #18
(Our Deposit Account No. 03-3975)
(Our Order No. 7018 | 213987
C# | Old M#



PATENT APPLICATION

RECEIVED
NOV 10 1997
GROUP 2307

Filed: April
Title: IDENTIFYING DATA IN A DATA PROCESSING SYSTEM

Date: October 24, 1997

PETITION FOR EXTENSION OF TIME FOR COPENDENCY

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

Applicant hereby petitions to extend the life of this application to and through at least the above dates so as to copend with a continuing application. The requisite extension fee is enclosed.

1. The original due date in the subject application was AUGUST 30, 1997

2. Extension fee required

	Large/Small Entity		Fee Code
(1 mo)	\$110/\$55		115/215
(2 mos)	\$400/\$200		116/216
(3 mos)	\$950/\$475	+ 200	117/217
(4 mos)	\$1510/\$755		118/218

3. Enter any previous extension fee paid since last Actionsubtract

4. CHECK ATTACHED FOR FEE OF \$200

5. "Small entity" verified statement filed: herewith. previously.

Please charge any mission or inadequate fee re this petition to our Deposit Account/Order Nos. shown in the heading hereof for which purpose a duplicate copy of this sheet is attached:

Cushman Darby & Cushman
Intellectual Property Group of
Pillsbury Madison & Sutro LLP

1100 New York Avenue, N.W.
Ninth Floor, East Tower
Washington, D.C. 20005-3918
Tel: (202) 861-3000
DSL/pgd

By: Atty: Dale S. Lazar | Reg No. 28872
Sig: [Signature] | Fax: (202) 822-0944
Tel: (202) 861-3527

NOTE: This paper must be headed in the parent application of, and filed in duplicate and separately from, Rule 60, 62, continuation, division or CIP papers, with separate PTO receipt (CDC-103A).

10/31/1997 EKURTZ 00000019 08425160
01 FC:216 200.00 0P

08/425,160



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/425,160	04/11/95	FARBER	213987

LM41/890L
 CUSHMAN DARBY AND CUSHMAN
 1100 NEW YORK AVENUE NW
 NINTH FLOOR EAST TOWER
 WASHINGTON DC 20005-3918

EXAMINER	
HOMER, J	
ART UNIT	PAPER NUMBER
2771	19

DATE MAILED: 03/02/98

NOTICE OF ABANDONMENT

This application is abandoned in view of:

- Applicant's failure to respond to the Office letter, mailed 5/30/97.
- Applicant's letter of express abandonment which is in compliance with 37 C.F.R. 1.138.
- Applicant's failure to timely file the response received _____ within the period set in the Office letter.
- Applicant's failure to pay the required issue fee within the statutory period of 3 months from the mailing date of _____ of the Notice of Allowance.

- The issue fee was received on _____.
- The issue fee has not been received in Allowed Files Branch as of _____.

In accordance with 35 U.S.C. 151, and under the provisions of 37 C.F.R. 1.316(b), applicant(s) may petition the Commissioner to accept the delayed payment of the issue fee if the delay in payment was unavoidable. The petition must be accompanied by the issue fee, unless it has been previously submitted, in the amount specified by 37 C.F.R. 1.17 (l), and a verified showing as to the causes of the delay.

If applicant(s) never received the Notice of Allowance, a petition for a new Notice of Allowance and withdrawal of the holding of abandonment may be appropriate in view of *Deigar Inc. v. Schuyler*, 172 U.S.P.Q. 513.

- Applicant's failure to timely correct the drawings and/or submit new or substitute formal drawings by _____ as required in the last Office action.
 - The corrected and/or substitute drawings were received on _____.

6. The reason(s) below.

The applicants have abandoned this application in favor of
FWC S/N 08/960,079.

Wayne
WAYNE AMSBURY
PRIMARY PATENT EXAMINER

69558 U.S. PTO

08/960079



10/24/97

PATENT APPLICATION SERIAL NO. _____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

11/25/1997	KHARLING	00000051	08960079	
01	FC:201			395.00 OP
02	FC:202			328.00 OP
03	FC:203			847.00 OP
04	FC:204			135.00 OP

PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 1997

Application or Docket Number

08960579

CLAIMS AS FILED - PART I

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE		
TOTAL CLAIMS	97 minus 20 = *	77
INDEPENDENT CLAIMS	11 minus 3 = *	8
MULTIPLE DEPENDENT CLAIM PRESENT		

* 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	RATE	FEE
	395.00		790.00
x\$11=	847	x\$22=	
x41=	328	x82=	
+135=	135	+270=	
TOTAL	1705	TOTAL	

CLAIMS AS AMENDED - PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total	* Minus	**
Independent	* Minus	***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM			

SMALL ENTITY

OR

OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
x\$11=		x\$22=	
x41=		x82=	
+135=		+270=	
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			

RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
x\$11=		x\$22=	
x41=		x82=	
+135=		+270=	
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			

RATE	ADDITIONAL FEE	RATE	ADDITIONAL FEE
x\$11=		x\$22=	
x41=		x82=	
+135=		+270=	
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.

PACE DATA ENTRY CODING SHEET

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

1ST EXAMINER _____ DATE _____
2ND EXAMINER _____ DATE _____

SPECIAL HANDLING SHEETS OF DRAWING

GROUP ART UNIT _____ CLASS _____

FILING DATE MONTH _____ DAY _____ YEAR _____

TYPE APPL SMALL ENTITY?

APPLICATION NUMBER 08/960079

TOTAL CLAIMS _____

INDEPENDENT CLAIMS _____

FILING FEE _____ FOREIGN LICENSE _____

ATTORNEY DOCKET NUMBER _____

10/24/97

CONTINUITY DATA

CONT STATUS CODE	PARENT APPLICATION SERIAL NUMBER	PCT APPLICATION SERIAL NUMBER	PARENT PATENT NUMBER	PARENT FILING DATE		
				MONTH	DAY	YEAR
P	C	T	/			
P	C	T	/			
P	C	T	/			
P	C	T	/			
P	C	T	/			

PCT/FOREIGN APPLICATION DATA

FOREIGN PRIORITY CLAIMED	COUNTRY CODE	PCT/FOREIGN APPLICATION SERIAL NUMBER			FOREIGN FILING DATE		
		MONTH	DAY	YEAR	MONTH	DAY	YEAR

10/24/97
 JC494 U.S. PTO

A/Pwe
 Page 1 of 4
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
REQUEST FOR FILE WRAPPER CONTINUING APPLICATION UNDER 37 CFR 1.62 (RULE 62)
For Design or Utility Applications

BOX FWC

Hon. Commissioner of Patents and Trademarks
 Washington, D.C. 20231

Prior Application:
 Group Art Unit: 2307
 Examiner: HOMERE, J.
 Atty Dkt: 243063/
new M#/Client Ref.
 (Our Deposit Account No. 03-3975)
 (Our Order No. 7018/243063)
 C# / new M#
 Date: October 24, 1997

Sir:

This is a RULE 62 REQUEST for filing from
 prior copending parent Application No. 08/425,160, a
series code ↑ ↑ serial no.

- divisional
- continuation (**Exr. NOTE:** any election in parent as to species/restriction requirement:
 is carried over with traverse is not carried over)
- continuation-in-part without new Declaration (Rule 62(d)) without fee
- continuation-in-part (with new Declaration attached hereto)

20/Pre
D
20/97

The parent was filed on April 11, 1995, entitled DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE, etc.,

by the following named inventor(s) who is/are the same as, less than all of (see Item 17),
 more than (for CIP only), those named in that parent application:

(1) Inventor	David	A.	FARBER
	First	Middle Initial	Family Name
Residence	Ojai	CA	U.S.A.
	City	State/Foreign Country	Country of Citizenship
Post Office Address	202E N. Carillo Rd., Ojai, CA 93023		
(include Zip Code)	93023		
(2) Inventor	Ronald	D.	LACHMAN
	First	Middle Initial	Family Name
Residence	Northbrook	Il.	U.S.A.
	City	State/Foreign Country	Country of Citizenship
Post Office Address	3140 Whisperwoods Court, Northbrook, Il. 60062		
(include Zip Code)	60062		
(3) Inventor			
	First	Middle Initial	Family Name
Residence			
	City	State/Foreign Country	Country of Citizenship
Post Office Address			
(include Zip Code)			
(4) Inventor			
	First	Middle Initial	Family Name
Residence			
	City	State/Foreign Country	Country of Citizenship
Post Office Address			
(include Zip Code)			
(5) Inventor			
	First	Middle Initial	Family Name
Residence			
	City	State/Foreign Country	Country of Citizenship
Post Office Address			
(include Zip Code)			

NOTE: FOR ADDITIONAL INVENTORS, check box and attach sheet (CDC-110A) with same information with same information for each inventor starting with inventor No. 6 and number new page 1A.

1. **Requirement of Rule 62:** Rule 62 filings are to be used only when the issue fee has not been paid (except as noted below) in the above-identified prior application nor that application abandoned or its proceedings terminated. This Rule 62 filing will be considered by the PTO as an express abandonment of that prior application except when this Rule 62 filing is pursuant to Rule 313(b)(5), i.e., when the issue has been paid in the prior application and a petition filed to abandon that application to permit an IDS to be considered in this Rule 62 application. (Note: 37 CFR 1.53 (Rule 53) may be used for continuations and divisions where the prior application is not to be abandoned.)

2. The issue fee has been paid in the parent, but this Rule 62 Request follows a Rule 313(b)(5) petition, and per 1138 OG 40 waiver is respectively requested of that part of Rule 62 which prohibits use of the rules to file an FWC after payment of the issue fee.

3. Priority is claimed under 35 U.S.C. 119/365 based on filing in _____ of:

Application No.		Filing Date		Application No.		Filing Date	
				(country)			
(1)	_____	_____	_____	(4)	_____	_____	_____
(2)	_____	_____	_____	(5)	_____	_____	_____
(3)	_____	_____	_____	(6)	_____	_____	_____

a. _____ (No.) Certified copy/copies attached.

b. Certified copy/copies previously filed on _____ in prior U.S. Application No. _____ / _____, filed on _____.

c. Certified copy/copies filed during International stage of PCT/ _____ / _____ series code ⇄ serial no.

d. Priority is also claimed from PCT/ _____ / _____ filed _____.

4. The prior application is assigned of record to KINETECH, INC. by Assignment recorded JUNE 23, 1995 Reel 7593 Frame 0036.

5. Attached is an assignment Cover Sheet. Please return the recorded Assignment to the undersigned.

6. The power of attorney in the prior application is to Dale S. Lazar, Reg. No. 28872

(Name, Reg. No.) ⇄

7. Recognize as associate attorney

(Name and Reg. No.; Address as in item 8 unless otherwise indicated) ⇄

8. **Address all future communications to Cushman Darby & Cushman**, Intellectual Property Group of Pillsbury Madison & Sutro LLP, Ninth Floor, East Tower 1100 New York Avenue, N.W., Washington, D.C. 20005-3918

9. Amend the specification by inserting before the first line (in place of any comparable insert previously requested in any prior application) the sentence: This is a

DI

continuation-in-part (CIP) continuation division

of application No. 08/425,160, filed on April 11, 1995, which was series code ⇄ serial no. abandoned upon the filing hereof _____.

10. _____ (No.) Verified Statement(s) establishing "small entity" status under Rules 9 and 27

- a. filed in above prior application (and hence applicable hereto)
- b. attached.

974

11. **Requirement of Rule 62:** It is understood that secrecy under 35 U.S.C. 122 is hereby waived to the extent that if information or access is available to any one of the applications in the file wrapper of a 37 CFR 1.62 application, be it either this application or a prior application in the same file wrapper, the Patent and Trademark Office may provide similar information or access to all the other applications in the same file wrapper.

12. Petition to extend the life of the above prior application to at least the date hereof

NOTE: (One box) is being concurrently filed in that prior application (Use Form CDC-111).
 (must be) was previously filed in that prior application (Check length of prior extension).
 (X'd) is not necessary for copendency (Double check before X'ing this box).

13. Please enter the amendment previously filed on AUGUST 29, 1997 but unentered in the above prior application.

14. Attached: _____ sheet(s) per set of drawing of Fig(s) _____ :
 1 set informal; formal of size: A4 11"

15. **PRELIMINARY AMENDMENT to be entered before fee calculation** (Do not make amendments here except cancellation of whole claims or multiple dependencies for purpose of reducing the filing fee per MPEP §§ 506 and 607; do not cancel all claims.):

16. Attached is a Rule 103(a) Petition to suspend action

17. Petition is hereby made requesting deletion as inventor(s) of the following who is/are not inventor(s) of the invention being claimed in this Rule 62 application:

- 1. _____
- 2. _____
- 3. _____
- 4. _____

18. This Rule 62 application is a continuation-in-part which discloses and claims additional matter and the amendments in attached Amendment are to be considered an integral part of the CIP ab initio.
 a. New Declaration is attached.
 b. This application is also filed under Rule 62(d) (without a Declaration) and hence filing fee is not enclosed.

FILING FEE

THE FOLLOWING FILING FEE IS BASED ON THE CLAIMS EXISTING IN THE PRIOR APPLICATION AS AMENDED AT 13 AND 15 ABOVE

				Large/Small Entity		Fee Code
19. Basic Filing Fee Design Application				\$330/\$165		106/26
20. Not Design Application				\$790/\$395	+395	101/201
21. Total Effective Claims	97	minus 20 =	77	x \$22/\$11	+847	103/203
<small>(Base this ⚡ on claims as amended to effect CIP if this is a Rule 62(d) completion)</small>						
22.. Independent Claims	11	minus 3 =	8	x \$82/\$41	+328	102/202
23. If <u>any proper</u> multiple dependent claim (ignore improper) is present, (Leave this line blank if this is a <u>reissue</u> application)				\$270/\$135	+135	104/204
24. TOTAL FILING FEE =				\$1705		
25. If "assignment" box 5 is X'd, add recording fee.				\$40	+	581
26. If "petition" box 16 above is X'd, add petition fee.				\$130	+0	122
27. FEE ATTACHED =				\$1705		

(carry forward to line 36)

A "GOOG" 000000

- 28. Preliminary Amendment attached (to be entered after assigning Appln. No.).
(Do NOT X box 28 or 29 for CIP Amendment. See box 18)
- 29. The following PRELIMINARY AMENDMENT is to be entered after assigning Appln. No.:

- 30. ATTACHED:

**ADDITIONAL FEE CALCULATION FOR
PRELIMINARY AMENDMENT
PER BOXES 28/29**

	Claims remaining after amendment	Highest number previously paid for	Present Extra		Additional Fee	
				<u>Large/Small Entity</u>		<u>File Code</u>
32.	Total Effective Claims <u>97</u>	minus ** <u>97</u> = *	<u>0</u> x \$22/\$11	=	\$ <u>0</u>	(103/203)
33.	Independent Claims <u>11</u>	minus *** <u>11</u> = *	<u>0</u> x \$82/\$41	=	+ <u>0</u>	(102/202)
34.	If amendment enters proper multiple dependent claim(s) into this application for the first time, add				+ <u>0</u>	(104/204)
					\$.270/\$135(per application)	
35.				ADDITIONAL FEE	\$ <u>0</u>	
36.				plus FEE from item 27 on page 3	+ <u>1705</u>	
37.				<u>TOTAL FEE ATTACHED</u>	\$ <u>1705</u>	

- 38. *If the entry in the first space is less than an entry in the middle space, the "Present Extra" result is "0"
- 39. **If the "Highest number previously paid for" (see item 21 above) is less than 20, write "20" in this space
- 40. If the "Highest number previously paid for" (see item 22 above) is less than 3, write "3" in this space

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficient fee only) now or hereafter relative to this application and the resulting Official document under Rule 20, or credit any overpayment, to our Account/Order Nos. shown in the heading hereof for which purpose a duplicate copy of this sheet is attached. This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal form is filed.

<p>1100 New York Avenue, N.W. Ninth Floor East Tower Washington, D.C. 20005-3918 Tel: (202) 861-3000 DSL/pgd</p>	<p style="text-align: center;">Cushman Darby & Cushman Intellectual Property Group of Pillsbury Madison & Sutro LLP</p> <p>By: Atty: <u>Dale S. Lazar</u></p> <p>Sig: </p>	<p>Reg. No. <u>28872</u></p> <p>Fax: (202) 822-0944 Tel: (202) 861-3527</p>
--	---	---

NOTE: No: 1: File this Request in duplicate with 2 postcard receipts (CDC-103) & attachments
NOTE: No: 2: Is extension in parent necessary for competency? **DOUBLE CHECK** Item 12 above.

~~ESTIC (re)~~

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:

FARBER, et al

Group Art Unit: 2307

Appln. No. 08/425,168 AUG 29 1997

Examiner: HOMERE, J.

Filed: April 11, 1995

For:

*DATA PROCESSING SYSTEM USING SUBSTANTIALLY
UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS,
WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME
IDENTIFIER (As amended)*

21 / Pre
E
Jew

August 29, 1997

AMENDMENT UNDER 37 CFR 1.116

GROUP 2000
SEP - 3 97
16 8-188

Honorable Commissioner of Patents
and Trademarks
Washington, D.C., 20231

Sir:

Please amend this application as follows:

In the Claims:

E!

- 1 1. (Twice Amended) In a data processing system, an apparatus comprising:
- 2 identity means for determining, for any of a plurality of data items present
- 3 in the system, a substantially unique identifier, [said] the identifier being
- 4 determined using and depending on all of the data in the data item and only [on]

APPLICATION of FARBER, et al
Serial No. 08/425,160

E1

5 the data in the data item, whereby two identical data items in the system will have
6 the same identifier; and
7 existence means for determining whether a particular data item is present
8 in the system, by examining the identifiers of the plurality of data items.

E2

1 23. (Amended) An apparatus as in claim 11, further comprising:
2 means for verifying the integrity of a data item obtained from [said] the
3 requesting means in response to providing [said] the requesting with a particular
4 data identifier, to confirm that the data item obtained from the requesting means is
5 the same data item as the data item requested, [said] the verifying means invoking
6 [said] the identity means to determine the data identifier of the obtained data item,
7 and comparing [said] the determined data identifier with [said] the particular data
8 identifier to verify [said] the obtained data item.

E3

1 30. (Three times amended) A method of identifying a data item present in
2 a data processing system for subsequent access to the data item, the method
3 comprising:
4 determining a substantially unique identifier for the data item, [said] the
5 identifier depending on and being determined using all of the data in the data item
6 and only [on] the data in the data item, whereby two identical data items in the
7 system will have the same identifier; and
8 accessing a data item in the system using the identifier of the data item.

E4

1 33. (Twice Amended) A method for duplicating a given data item present
2 at a source location to a destination location in a data processing system, the
3 method comprising:

4 determining a substantially unique identifier for the given data item, [said]
5 the identifier depending on and being determined using all of the data in the data
6 item and only [on] the data in the data item, whereby two identical data items in
7 the system will have the same identifier;

8 determining, using [said] the data identifier, whether [said] the data item is
9 present at [said] the destination location; and

10 based on [said] the determining whether the data item is present, providing
11 [said] the destination location with [said] the data item only if [said] the data item
12 is not present at [said] the destination.

EH

1 34. (Twice Amended) A method as in claim 33, wherein [said] the given
2 data item is a compound data item having a plurality of component data items, the
3 method further comprising:

4 for each data item of [said] the component data items,

5 obtaining the component data identifier of the data item by
6 determining a substantially unique identifier for the data item, [said] the
7 identifier depending on and being determined using all of the data in the
8 data item and only [on] the data in the data item, whereby two identical
9 data items in the system will have the same identifier;

10 determining, using [said] the obtained component data
11 identifier, whether [said] the data item is present at [said] the destination;
12 and

13 based on [said] the determining, providing [said] the
14 destination with [said] the data item only if [said] the data item is not
15 present at [said] the destination.

1 35. (Twice Amended) A method for determining whether a particular data
2 item is present in a data processing system, the method comprising:

3 (A) for each data item of a plurality of data items present in the system,

4 (i) determining a substantially unique identifier for the data item,
5 [said] the identifier depending on and being determined using all of the
6 data in the data item and only [on] the data in the data item, whereby two
7 identical data items in the system will have the same identifier; and

8 (ii) making and maintaining a set of identifiers of [said] the
9 plurality of data items; and

10 (B) for the particular data item,

11 (i) determining a particular substantially unique identifier for the
12 data item, [said] the identifier depending on and being determined using all
13 of the data in the data item and only [on] the data in the data item,
14 whereby two identical data items in the system will have the same
15 identifier; and

16 (ii) determining whether [said] the particular identifier is in [said]
17 the set of data items.

1 36. (Twice Amended) A method of backing up, of a plurality of data items
2 present in a data processing system, data items modified since a previous backup
3 time in the data processing system, the method comprising:

APPLICATION of FARBER, et al
Serial No. 08/425,160

E4

- 4 (A) maintaining a backup record of identifiers of data items backed up
5 at the previous backup time; and
6 (B) for each of [said] the plurality of data items present in the data
7 processing system,
8 (i) determining a substantially unique identifier for the data item,
9 [said] the identifier depending on and being determined using all of
10 the data in the data item and only [on] the data in the data item,
11 whereby two identical data items in the system will have the same
12 identifier;
13 (ii) determining those data items of the plurality of data items
14 whose identifiers are not in the backup record; and
15 (iii) based on [said] the determining, copying only those data items
16 whose data identities are not recorded in the backup record.

E5

- 1 38. (Twice Amended) A method of locating a particular data item at a
2 location in a data processing system, the method comprising:
3 (A) determining a substantially unique identifier for the data item, [said]
4 the identifier depending on and being determined using all of the data in
5 the data item and only [on] the data in the data item, whereby two
6 identical data items in the system will have the same identifier;
7 (B) requesting the particular data item by sending the data identifier of the
8 data item from the requestor location to at least one location of a plurality
9 of provider locations in the system; and
10 (C) on at least some of [said] the provider locations,
11 (a) for each data item of a plurality of data items at [said] the
12 provider locations,

999

APPLICATION of FARBER, et al
Serial No. 08/425,160

E5

- 13 (i) determining a substantially unique identifier for the data item,
14 [said] the identifier depending on and being determined using all of
15 the data in the data item and only on the data in the data item,
16 whereby two identical data items in the system will have the same
17 identifier; and
18 (ii) making and maintaining a set of identifiers of data items,
19 (b) determining, based on [said] the set of identifiers, whether the
20 data item corresponding to the requested data identifier is present at
21 [said] the provider location; and
22 (c) based on [said] the determining, when [said] the provider
23 location determines that the particular data item is present at the
24 provider location, notifying [said] the requestor that the provider
25 has a copy of the given data item.

E6

- 1 40. (Twice Amended) A method of locating a particular data item among a
2 plurality of locations, each of [said] the locations having a plurality of data items,
3 the method comprising:
4 determining, for the particular data item and for each data item of the
5 plurality of data items, a substantially unique identifier for the data item, [said]
6 the identifier depending on and being determined using all of the data in the data
7 item and only [on] the data in the data item, whereby two identical data items in
8 the system will have the same identifier; and
9 determining the presence of the particular data item in each of [said] the
10 plurality of locations by determining whether the identifier of the particular data
11 item is present at each of [said] the locations.

100

EN

1 46 51. (Twice Amended) A method of maintaining at least a predetermined
2 number of copies of a given data item in a data processing system, at different
3 locations in the data processing system, [said] the data processing system being
4 one wherein data is identified by a substantially unique identifier, [said] the
5 identifier depending on and being determined using all of the data in the data item
6 and only [on] the data in the data item, whereby two identical data items in the
7 system will have the same identifier, and wherein any data item in the system may
8 be accessed using only the identifier of the data item, the method comprising:
9 (i) sending, from a first location in the system, the data identifier of the
10 given data item to other locations in the system; and
11 (ii) in response to [said] the sending, at each of [said] the other locations,
12 (A) determining whether the data item corresponding to the data identifier
13 is present at the other location, and based on [said] the determining, and
14 (B) informing [said] the first location whether [said] the data item is
15 present at the other location; and
16 (iii) in response to [said] the informing from [said] the other locations, at
17 [said] the first location,
18 (A) determining whether [said] the data item is present in at least the
19 predetermined number of other locations, and based on [said] the
20 determining,
21 (B) when less than the predetermined number of other locations have a
22 copy of the data item, requesting some locations that do not have a copy of
23 the data item make a copy of the data item.

ic/

APPLICATION of FARBER, et al
Serial No. 08/425,160

In the Title:

Please replace the title with DATA PROCESSING SYSTEM

EP
USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA
ITEMS, WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME
IDENTIFIER.

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above amendments and the following remarks.

By this Amendment, the title has been replaced as requested by the Examiner.

Claims 1, 23, 30, 33-36, 38, 40 and 51 have been amended. Claims 1-53 remain pending in this application, of which claims 46-50 are withdrawn from consideration.

This invention relates to data processing systems and, more particularly, to data processing systems wherein data items are identified by substantially unique identifiers which:

- (A) depend on and
- (B) are determined using:
 - (a) all of the data in the data items and
 - (b) only the data in the data items.

A notable and significant property of this invention is that, in any particular system, two identical data items in the system will have the same identifier.

Claim 1, for example, recites an apparatus which includes identity means and existence means. The identity means determines, "for any of a plurality of data items in the system, a substantially unique identifier, the identifier being determined using all of the data in the data item and using only the data in the data item, whereby two identical data items in the system will have the same identifier." Claim 1 has been amended to clarify that the identifier depends on and is determined using:

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- (a) all of the data in the data item, and
- (b) only the data in the data item.

Claim 1 is further amended to clarify the property of the invention that, within the same system, two identical data items in the system will have the same identifier.

From the above at least the following should be clear:

- (1) the identifier for a data item does not depend on anything not in the data item ("only in the data item");
- (2) the identifier is not determined using anything except the data in the data item ("determined using . . . only the data in the data item");
- (3) there is nothing in the data item that is not used to determine the identifier, that is, everything in the data item is used to determine the identifier ("all of the data in the data item");
- (4) if two data items are identical (i.e., contain exactly the same data), they will have the same identifier. (Note, of course, that this does not imply the converse, i.e., that if two data items have the same identifier then they are identical.)
- (5) Given any data item, its identifier can be determined without reference or access to anything else.

As a consequence of the above, if the data item changes, the identifier for the data item should change (because it is the data in the data item that is used to determine the identifier). But if something other than the data item changes (e.g., if some data in another data item changes or if a file name of the data item or of another data item changes), then the identifier should not change (because it is only the data in the data item that is used to determine the identifier).

So, for example, if a data item were to be given an identifier (i.e., be identified or named) based on something else (other than only the data in the data item) such as, say, a file name of the data item, then that identifier would not depend on or be determined using

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"only the data in the data item." It may depend on the data in the data item, but it also depends on the file name of the data item. So if the filename of the data item changes then the identifier for the data item would change, even if the data in the data item did not change at all.

To summarize, if a system determines an identifier using all of the data in a data item as well as something else, then that system does not determine the identifier using only the data in the data item.

And, if a system determines an identifier using only some of the data in a data item, even if it uses nothing else to determine the identifier, that system does not determine the identifier using all the data in the data item.

And, if a system cannot determine an identifier for a data item without reference or access to some other data, the system does not determine the identifier using only the data in the data item.

Using the present invention, a substantially unique identifier is determined for a data item, regardless of any other names (identifiers) that data item may have. Further, the substantially unique identifier is determined for the data item, regardless of any names (identifiers) or the contents of any other data or data items.

Note that a data item may have other names, i.e., names other than the substantially unique identifier. For example, a data item may be a data file and may have a data file name given to it by a user. This file name is not part of the data item. The same data item with a user file name may be known internally in the system by yet another name (e.g., an i-node number in a Unix-like file system). This other name is also not part of the data item. All the data in a file can be changed and its user-supplied and system filenames can stay the same.

Suppose that two identical data items have different file names such as, for example, "a.c" and "e.c". In a system such that of the presently claimed invention the two data items, because they are identical, will have the same identifier.

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The Examiner continues to reject claims 1-4, 11-15, 18-20, 22-32, 35 and 38-45 under 35 U.S.C. § 102(b) as being anticipated by Gramlich.

The grounds for this rejection are respectfully traversed.

The factual determination of anticipation requires the disclosure in a single reference of every element of the claimed invention. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990) *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990), *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988), *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988), *Alco Standard Corp. v. TVA*, 808 F.2d 1490, 1 USPQ2d 1337 (Fed. Cir. 1986), *In re Marshall*, 578 F.2d 301, 198 USPQ 344 (CCPA 1978), *In re Arkley*, 455 F.2d 586, 172 USPQ 524 (CCPA 1972). Anticipation requires that all of the elements and limitations of the claim are found within a single prior art reference. *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 138, 231 USPQ 644, 646 (Fed. Cir. 1986), *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). "For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988), emphasis added. Anticipation under section 102 is established only when a single prior art reference expressly describes or inherently contains each element of a claimed invention functioning in substantially the same way to produce substantially the same result. *Tate Engineering, Inc. v. United States*, 477 F.2d 1336, 1342, 178 USPQ 365 (Ct. Claims 1973).

The Examiner must identify wherein each and every facet of the claimed invention is disclosed in the applied reference. *Lindemann Maschinenfabrik v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984).

If prior art reference lacks an element of a claim at issue, the reference cannot anticipate. *Carman Indus., Inc. v. Wahl*, 724 F.2d 932, 938 (Fed. Cir. 1983).

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Of the claims rejected under Section 102, claims 1, 30, 35 and 38 and are independent. Applicants respectfully submit that Gramlich lacks elements recited in the claims and therefore Gramlich does not anticipate the claimed invention. In particular, as to claim 1, Gramlich lacks at least the claimed identity and existence means; as to claim 30, Gramlich lacks at least the claimed "determining" and "accessing;" as to claim 35, Gramlich lacks at least the claimed "determining a substantially unique identifier" and the "making and maintaining a set of identifiers;" and as to claim 38, Gramlich lacks at least the claimed "determining," and the "requesting."

Since Gramlich lacks at least these elements of the independent claims, Gramlich cannot anticipate the independent claims. And since Gramlich does not and cannot anticipate the independent claims, he cannot and does not anticipate the dependent claims.

So, what does Gramlich do?

As discussed in applicants' earlier response, Gramlich has two kinds of files, source files and database component files. "Each database component file contains information regarding the text contained in one source file." *Gramlich*, col. 3, lines 4-5. Also, "A database component file is created for each source file." *Gramlich*, col. 5, lines 66-67.

Gramlich's source files contain computer program source code, and his database component files contain information about the textual words (symbols) in the source files.

For each textual word . . . [in a source file], an entry in the database component file is provided containing symbol information . . . [comprising] the symbol name, symbol type and line number in the source file where the symbol is located.

Gramlich, col. 3, lines 8-13.

Gramlich determines the name of the database component file using two things. First, Gramlich includes the source code file name in the database component file name and then Gramlich includes a hash value to make up the rest of the database component file name.

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Thus, Gramlich determines a name of one data item (the database component file) using (a) the name of a different data item (the source code file), and (b) a hash value.

Note that Gramlich's source files are not identical to his database component files. However, even if they were identical, Gramlich would still not use only the data in the data item since he also uses the source filename to determine the database component file name.

Since, in Gramlich, the name of the different data item (the name of the source code file) is concatenated to the hash and is not part of the data in the data item (i.e., it is not part of the database component file), Gramlich does not determine the name of the data item using only the data in the data item as claimed.

That is, as to claim 1, Gramlich lacks the claimed identity means

for determining . . . a substantially unique identifier,
said identifier being determined using and depending on all of
the data in the data item and only the data in the data item.

In Gramlich the identifier is determined (a) using the data in another data item (the source file) and (b) using data other than the data in the data item (the name of the source file).

Similarly, as to the method claims 30, 35 and 38 (and their dependents), Gramlich does not teach or in any way suggest the claimed:

determining a substantially unique identifier for the data item,
said identifier being determined using and depending on all of
the data in the data item and only the data in the data item.

Accordingly, Gramlich lacks at least one claimed element and therefore cannot anticipate any of these claims or their dependents.

Still further, Gramlich lacks the property that two identical data items in the system will have the same identifier. Consider the example noted above (at page 10), of two identical data items have different file names such as, for example, "a.c" and "e.c". Gramlich teaches (Fig. 2 and its corresponding description) that the database component files corresponding to the files (data items) named "a.c" and "e.c" will have names "a.c*.bd" and

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"e.c.*.bd", where "*" is some hash value. That is, even if the contents of files "a.c" and "b.c" are identical, in Gramlich they will cause different file names to be generated for their corresponding database component files. In a system such as that of the presently claimed invention the two data items, designated "a.c" and "b.c", if they are identical, will have the same identifier, regardless of their user-given file names.

As well as the above, there are other elements of the claims which are not taught or suggested by Gramlich. Some of these are discussed below:

Claim 2 depends from claim 1.

For example, further as to claim 2, there is nothing in Gramlich to teach or in any way suggest the claimed "local existence means for determining whether an instance of a particular data item is present at a particular location in the system, based on the identifier of the data item." First, as noted above, Gramlich lacks the identifiers of the present invention. Accordingly, there is no way that Gramlich could determine if an item is present using such an identifier. Further, Gramlich has no notion of "local" or "location in the system," so he cannot have any sort of "local existence means." Inasmuch as Gramlich determines whether items are present, his decision is binary. That is, the item would either be there or not. There is nothing in Gramlich about items "being present at a particular location."

Claim 3 depends from claim 2.

Similarly, as to claim 3, since Gramlich lacks the identifiers of this invention and he lacks the local existence means, he must also lack such a means that "determines whether a particular data item is present at a particular location in the system by examining the identifiers of the plurality of data items at said particular location in the system."

Claim 4 depends from claim 2.

And similarly as to claim 4, since Gramlich lacks the identifiers of this invention and he lacks the local existence means, he must also lack anything like the claimed data associating means and the claimed access means. As recited in claim 4, the associating

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means makes and maintains, for a data item in the system, "an association between the data item and the identifier of the data item."

To show, supposedly, where Gramlich teaches the data associating means the Examiner refers to the following:

generating an index file for at least one database component file,
said index file comprising a listing of symbols and the name of
the database component file the symbol occurs in.

Gramlich, col. 17, lines 38-41 (this is a step in Gramlich's claim 2).

Gramlich does not associate a data item with the identifier of the data item, Gramlich associates symbols in a database component file with database component file names. That is, Gramlich associates data in data items with file names.

For the access means of claim 4, the Examiner refers to the Gramlich, col. 14, lines 45-50 (steps in Gramlich's claim 3). However, since Gramlich lacks the association of the present invention, he must also lack the access means which uses the claimed association.

Claims 11, 15 and 23 depend from claim 4.

Claim 11 recites an apparatus wherein "a location is a computer among a network of computers," the apparatus having a requesting means which requests data items at a current location from a remote location. In other words, in the invention of claim 11, the requesting means requests data items at a current computer from a remote computer in a network of computers.

Gramlich says nothing about a network of computers, and is silent about any kind of requesting means.

The Examiner relies on Gramlich, col. 18, lines 20-21, supposedly to anticipate the subject matter of claim 11. That portion of Gramlich, part of his claim 6, recites:

means for performing a query for at least one symbol
comprising:
means for reading the index file for the occurrence of the
symbol.

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Applicants fail to see anything in the cited portion of Gramlich (or anywhere else in Gramlich) which teaches or suggests anything about a network of computers or about a requesting means, as claimed, which requests an item from a remote location in such a network. Gramlich is not about networks! Accordingly, Gramlich does not anticipate claim 11.

Claim 15 depends from claim 11 and is therefore also patentable over Gramlich. Further, since Gramlich lacks any notion of a network of computers and of accessing data on such network, he clearly lacks the claimed transparent access means "for accessing a data item from one of several" computers among a network of computers.

Claim 23 depends from claim 11 and is therefore also patentable over Gramlich for the reasons given above.

Claim 23 recites an apparatus which includes verifying means for verifying the integrity of a data item obtained from the requesting means in response to providing the requesting with a particular data identifier. The verifying means confirms that a data item obtained from the requesting means is the same data item as the data item requested. The verifying means invokes the identity means to determine the data identifier of the obtained data item, then it compares determined data identifier with the particular (requested) data identifier to verify the obtained data item.

Gramlich neither teaches nor suggests any such verifying means.

First, as noted above, there's nothing in Gramlich about requesting or getting data items over a network as recited in the claim.

Second, Gramlich does not teach or in any way suggest verifying a data item by determining its identifier. In fact, other than Gramlich's statement that "[i]t is an object . . . to provide a means for checking the integrity of the database with the current version of the source file," *Gramlich*, col. 2, lines 29-32, Gramlich provides no teaching at all about verifying integrity. What Gramlich seems to do is to check whether a database component file in the database matches the current version of the source file. And the reason he has to

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do this is precisely because he does not have the same naming scheme as the present invention. For if Gramlich generated the name of a file using all of the data in the file and only the data in the file then the name of the file would be an indication of which file to use! It is because Gramlich uses only some of the information in the file and because he uses other information external to the file and because he uses all of this to name another file that he has to do the kind of verification he talks about.

In this invention on the other hand, the verification checks that a particular data item obtained is in fact the requested data item. It may be that the wrong data item was sent, that the wrong data item as received or simply that the data item got corrupted while being sent or received. In any case, once a data item is obtained, the system can determine the identifier of the received data item and check that the identifier matches the one requested. Gramlich does not do this.

Claim 12 depends from claim 2.

Gramlich's file names are somewhat akin to the contextual names of the data items referred to in claim 12. But, as stated repeatedly above, they are in no way like the identifiers of this invention. The Examiner seems to want it both ways. If the identifiers of this invention are the same as Gramlich's file names, then where does Gramlich teach contextual names? Since Gramlich's file names are like the contextual names of this invention, there would be no reason for him to associate the contextual names with themselves. Thus, as to claim 12, Gramlich is silent about the claimed context means and referencing means.

Claims 13 and 14 depend from claim 12.

Gramlich lacks the assignment means of claim 13 and, since he also lacks the context means, he cannot have any assignment means which invokes the context means. As to claim 14, Gramlich lacks at least the contextual name access means.

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Claim 18 depends from claim 1.

In some case, e.g., as recited in claim 18, at least some of the data items are compound data items, each compound data item including at least some component data items in a fixed sequence. Here the "identity means determines the identifier of a compound data item based on each component data item of the compound data item."

Gramlich has absolutely no notion of identifying (naming) compound data items. All that Gramlich teaches is source files, database component files, and file directories. Directories are the only compound data items in Gramlich, and he has no notion at all of naming them. If anything, the directories are given arbitrary and random user-selected names (such as "Project", "Source1" and "Source2" in Gramlich's Figure 2). The Examiner has shown nowhere in Gramlich where the naming of compound data items is either taught or in any way suggested--let alone where a compound data item is named "based on each component data item of the compound data item."

For claim 18 the Examiner simply says that the "limitations . . . have already been discussed in the preceding paragraph." Applicants fail to see anywhere in the Action where the limitations of claim 18 (or its dependent claims 19-22) are discussed.

Claim 19 depends from claim 18.

As noted, Gramlich does not teach anything about naming compound data items and he has no notion of compound data items which "are files and said component data items are segments," as recited in claim 19. And since he lacks the claimed segments, he does not and cannot determine "the identifier of a file based on the identifier of each data segment of the file." Again the Examiner has shown nowhere in Gramlich where segments are taught, where files are made up of segments, or where the names of files are determined based on the segment names.

Claim 20 depends from claim 18.

As noted above, Gramlich does make use, in an unimportant or peripheral way, of file directories. However, as noted above, the directories in Gramlich are given arbitrary

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names by the user, and the names are not based on the contents of the directories. Gramlich does not in any way teach or suggest naming a directory "based on each file and subordinate directory within the given directory," as recited in claim 20.

Claim 22 depends from claim 18.

In some data processing systems, it is desirable to copy compound data items (e.g., compound files made up of segments or directories made up of other directories and files) from one location to another in the system. Obviously there is some cost associated with such copying and so it is desirable to avoid unnecessary copy operations. Accordingly, in one aspect, as recited in claim 22, this invention provides for "local existence means for determining whether a particular data item is present at a particular location in the system, based on the identifier of the data item." The invention of claim 22 further recites "compound copy means" which uses the local existence means to determine when and whether to copy the components of a compound data item.

The only kind of compound data item in Gramlich is a file directory, and this item is peripheral to Gramlich's operation. Gramlich is completely silent about any sort of data item copying, and neither teaches or suggests anything at all about copying compound data items. Still further, there is nothing in Gramlich to teach or in any way suggest the claimed compound copying means which only copies the components which are not present at the destination location. The Examiner has given no indication of where in Gramlich this conditional compound copying is supposedly taught.

Claim 25 depends from claim 3.

As noted above, Gramlich is silent as to the naming of compound data items. Accordingly, he has no notion of the apparatus claimed in claim 25 "wherein the identity means determines the identifier of a compound data item based on the identifier of each component data item of the compound data item."

Claim 27 depends from claim 25.

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And since Gramlich is silent about naming compound data items, he has no notion, as recited in claim 27, of naming such compound data items as files where the component data items are segments, and "wherein the identity means determines the identifier of a file based on the identifier of each data segment of the file."

Claim 28 depends from claim 25.

As noted above, Gramlich teaches nothing about copying any data, let alone about copying compound data items. And he definitely says nothing about copying such data items only if they are not present at their intended destination, as determined using their identifiers.

Claim 26 depends from claim 3.

Claim 26 recites a context associating means, a means for obtaining the identifier of a data item and a logical copy means. As discussed above (at page 15 in the discussion of claim 4), Gramlich does not have anything like the claimed context associating means. Further, Gramlich lacks the claimed obtaining means and the claimed logical copy means. The Examiner has shown nowhere in Gramlich where data item copying is taught or in any way suggested.

Claim 29 depends from claims 1-28.

As to claim 29, there is nothing at all in Gramlich about database records, messages, data segments, data blocks, directories or instances of object classes.

Claims 31 and 32 depend from claim 30.

As noted above, Gramlich has no notion of associations between data items and identifiers or of assimilation of new data items into a system.

Claims 39-45 are patentable for at least the reasons stated above.

Summary

Applicants have shown that each of the rejected claims has at least one element which is not disclosed in Gramlich. Applicants respectfully remind the Examiner that anticipation under Section 102 requires that all of the elements and limitations of the claim be found within a single prior art reference. Not only must the elements be shown, they must be

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identically shown. *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).

The Examiner has failed, as required by *Lindemann Maschinenfabrik v. American Hoist and Derrick*, 730 F.2d 1452, 221 USPQ 481 (Fed. Cir. 1984), to identify wherein each and every facet of the claimed invention is disclosed in the applied reference. This is, of course, not surprising, since Gramlich does not teach or suggest the claimed invention.

In view of the above, applicants respectfully submit that Gramlich does not anticipate the presently claimed invention and withdrawal of this rejection is respectfully requested.

The Examiner continues to reject claims 5-10, 16, 17, 21, 33, 34, 36, 37 and 51-53 under 35 U.S.C. § 103 as being unpatentable over Gramlich in view of Konrad.

The grounds for this rejection are respectfully traversed.

First, as clearly shown above, claims 1 and 2 are patentable over Gramlich. In particular, Gramlich lacks the identity means and the existence means of claim 1 and it further lacks the local existence means of claim 2. Konrad does not overcome the deficiencies in Gramlich, and therefore no proposed combination of Gramlich with Konrad, inasmuch as such a combination is possible, would produce the invention of claims 1, 2 or their dependents.

Similarly, as to claims 33 and 35, any proposed combination of Gramlich with Konrad would lack at least the "determining a . . . unique identifier," and there is nothing in Gramlich or Konrad about a data processing system "being one wherein data is identified by a substantially unique identifier, said identifier being determined and depending on all of the data in the data item and only the data in the data item, wherein two identical data items have the same identifier, and wherein any data item in the system may be accessed using only the identifier of the data item."

Konrad relates to a database backup and recovery system. More particularly, Konrad relates to a database system which uses two almost parallel databases so that if one of the databases becomes inaccessible then the other backup database can be used instead. The way

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that Konrad does this is to maintain an audit trail of all updates to his primary database. A recovery processor continuously reads the audit information and updates the backup database accordingly. *Konrad*, Abstract.

Konrad has nothing really to do with data backup other than making one backup copy of an entire database.

Applicants respectfully submit that the claims are further patentable over the proposed combination of Gramlich and Konrad for at least the following reasons.

Claim 5 depends from claim 2.

In one aspect of this invention, as recited in claim 5, the invention includes duplication means which copies data from a source to a destination in the data processing system. Importantly, the copying takes place by providing said destination with the data item only if it is determined using the data identifier that the data item is not present at the destination. Notably there are two features recited in the claim. First the data is only copied if it is not present at the destination and second, the determination as to whether it is present at the destination is made using the data identifier.

As noted repeatedly above, since neither Gramlich nor Konrad teach anything like the identifier of the present invention, they do not and cannot determine the presence of a data item at a location using such an identifier.

In particular, there is nothing in Konrad to teach or in any way suggest copying data items at all, let alone copying from one place to another only if the data item is not present at the second location.

The Examiner cites the following supposedly to support his rejection over Konrad:

Information relating to updates to the primary data base is saved to intermediate storage in what is logically referred to as the audit trail.

Konrad, col. 4, lines 48-51.

Backup database 48 is a copy of Primary Data Base 34 made at a particular point in time.

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Konrad, col. 7, lines 37-39.

But the Examiner has shown nothing in *Konrad* to show the conditional copying of the present invention which provides the "destination with the data item only if . . . the data item is not present at the destination." And since *Konrad* does not do a conditional copy, there is no way that he does it based on the identifier.

Claim 10 depends from claim 2.

In one aspect, such as recited in claim 10, this invention includes a "remote existence means for determining whether a data item is present at a remote location in the system." *Konrad* recommends storing his backup database at a remote location. *Konrad*, col. 5, lines 10-14. However, there is nothing in *Konrad* about determining whether a data item is present at the remote location. All that *Konrad* does is use the entire database from the remote location in the event of a crash of his primary database. In fact, not only does *Konrad* not determine whether data is stored at the remote location, he acknowledges that the databases are not synchronized and so, in the event that he has to use the backup database, he has to synchronize it based on the audit trail. *Konrad*, col. 5, lines 15-29.

Claim 6 depends from claim 4.

As recited in claim 6, the system includes "assimilation means for assimilating a new data item into the system." This is not taught in *Konrad*. The Examiner cites the following from *Konrad's* claim 1 (col. 14, lines 7-10) supposedly to support *Konrad* teaching the assimilation means:

receiving transactions to process against the primary
database;
updating the primary database according to said
transaction.

Konrad relates to a database system. As such, the transactions could potentially include any sort of standard database transactions such as deletion, insertion or update or records. However, *Konrad* is silent about using any form of identity means to associate identifiers with data items.

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Claims 7-9 depend from claim 4.

As recited in claim 7, this invention includes a duplication means which provides a destination with a data item only if a local existence means determines that no instance of the data item is present at the destination. This determination is based on the identifier of the data item.

Konrad neither teaches nor suggests any such conditional duplication. In fact Konrad teaches no duplication.

As to claim 8, there is nothing in Konrad to teach or in any way suggest the backup means for making copies of data items in the system, the backup means maintaining a backup record of identifiers of data items backed up, and invoking duplication means to copy only those data items whose data identifiers are not recorded in the backup record."

First, as already noted, Konrad lacks the claimed duplication means. The Examiner relies simply on Konrad's use of a backup database to show the backup means of this invention. However, Konrad makes only one copy of the primary database and this copy is not made conditionally "to copy only those items . . . not in the backup record."

Backup Data Base 48 is a copy of Primary Data Base 34 made at a particular point in time.

Konrad, col. 7, lines 37-39.

Konrad copies the entire primary database and then tries to keep the copy in synch with the primary using the audit trail. Konrad does not do any selective copying.

Claim 9 depends from claim 8 and further includes recovery means for retrieving a data item previously backed up by the backup means. Konrad does not do backup or retrieval. Konrad makes one backup copy of his primary database. Then, if the primary database becomes inaccessible, he reverts to the backup database. He does not retrieve "a data item," he just uses the backup database. And, since he does not retrieve any items, he does not and cannot do so based on the identifier of the data items.

Claim 21 depends from claim 11.

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In one aspect of this invention, as recited in claim 21, the invention includes means for advertising a data item from a location in the system to at least one other location in the system. Recall that, as recited in claim 11 from which claim 21 depends, a location is a computer among a network of computers. The advertising means provides each of the other locations (computers) with the data identifier of the data item. It provides the data item to only those locations (computers) that request the data item in response to their getting the data identifiers.

Konrad teaches or suggests nothing about such advertising. There is absolutely nothing in Konrad about sending identifiers from one location to another, let alone about the second location then requesting a data item based on that sending.

The Examiner cites the following from Konrad, supposedly to show the advertising means:

Depending upon the storage requirements of the Primary Data Base 34, part or all of the data base may be loaded in the main storage units . . . of Processing Complex 18 for quick access.

Konrad, col. 6, lines 44-47.

Applicants find nothing in the cited portion of Konrad or anywhere else in Konrad to teach or suggest the claimed advertising means. All that the cited portion says is that if all of the primary database can fit in memory then it is loaded there for quick access. There's nothing about providing other locations with identifiers of data items and nothing about conditional providing of data items to locations only if the locations request the items. The main storage of Konrad is passive in the sense that it makes no decisions as to what is stored in it.

Claim 17 depends from claim 15.

The invention of claim 15 includes context means, context copy means and transparent referencing means. The context means makes and maintains a context association between a contextual name of a data item in the system and the identifier of the data item. The context copy means copies a data item from a source location to a destination location,

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given the contextual name of the data item, by copying only the context association between the contextual identifier and the data identifier from the source location to the destination location. The transparent referencing means obtains a data item from one of several locations the system given a contextual name for the data item. It invokes the context association to determine the data identifier of a data item given a contextual name, and invokes the transparent access means to access the data item from one of several locations given the identifier of the data item.

Konrad teaches none of the elements recited in claim 17. For one thing, Konrad does not teach anything about getting a data item from anywhere, let alone from "one of several locations . . . given a contextual name." Konrad only has two locations where data is stored--the primary database and the backup database. He only uses the backup database if the primary database fails. And he doesn't use either database to get data based on a contextual name, let alone using the identifier of a data item.

Claims 16, 33, 34, 36, 37 and 51-53 are patentable for at least the reasons stated above.

Accordingly, withdrawal of this rejection is respectfully requested.

Comment on Examiner's Remarks

In response to applicants' Amendment of March 12, 1997, the Examiner stated that:

applicants seem to be arguing that Gramlich's identifiers depend only on the source files and not on the database files.

Therefore, they cannot depend on only and all of the data in the data items, as required by the applicant's claims.

Paper of 5/30/97, pg. 8.

No! Applicants never said or meant to say that "Gramlich's identifiers depend only on the source files." Applicants never said this because its not true. Gramlich's identifiers depends on some of the contents of the source files and on the names of the source files.

And, with the claims amended to clarify that in this invention the identifiers are determined using the data in the data items, this further distinguishes over Gramlich.

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The Examiner is missing a fundamental point. Gramlich has two kinds of files (data items) that are of interest here. The first kind are source files which the user names, e.g., "e.c". The second type of files (data items) are database component files which the system names. The database component file names are derived from some of the contents of a source file and from the name of the source file. So, Gramlich has an identifier, a database component file name, which is not and cannot be determined from only the database component file. That is, Gramlich's identifier is not and cannot be determined from the data item.

Applicants note, however, that even if Gramlich's database file names did depend on the data in the database files (which they do not), and even if they depended on all of the data in the database files (which they do not), they would still not depend on only the data in the database files. Gramlich's database file names are formed from some of the contents of a source file and from the name of the source file.

Preferably, the name of the [database component] file is generated by computing a hash value from the sum of the contents of the [source] file and concatenating the hash value to the name of the [source] file.

Gramlich, col. 2, lines 52-55.

Gramlich generates a name for a database component file (one file) from some of the data in a source file (another, different file), along with the name of the source file (the other, different file).

Thus, even if Gramlich did use the contents of the database component file to give that file its name, which he clearly does not, the database component file name would still be formed using some other information obtained from some other place. Specifically, the file name would be formed using the file name of another file. So Gramlich does not use only the data in the data item to name a data item. Arguably he may use some of the data in the data item, and then only because that data happens to be the same as data in the source file from which the name is actually derived.

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The Examiner further states that

Gramlich details a unique name that is dependent upon the contents of the data items such that the unique names of the corresponding database files change when the contents of the source file change.

Paper of 5/30/97, pg. 8, emphasis added.

However, it is irrelevant that the data base file name could change when the contents of the source file change. That is not what is claimed. The claims recite that the data item's identifier is dependent "on all of the data in the data item and only the data in the data item." This is just not the case in Gramlich. As repeatedly noted, in Gramlich the identifier is not dependent on all of the data and its not dependent on only the data.

The Examiner goes on to say that

applicant's attempt to completely separate the source files from the database files is improper. The source files are rather computer codes for the database files. One of ordinary skill in the art would never separate the two. The ordinary skilled artisan would realize that source files can be used as back ups when the database files are defective. Since each source file is used to generate a corresponding database file, the unique name to a source file is therefore the same to the corresponding database file (DB files cannot exist without source files). Thus, it would be redundant for Gramlich to specify unique identifiers for the source files and additional ones for the database files since unique identifiers for source files are inherently the same identifiers for the database files. Therefore, Gramlich's unique names do depend on only and all of the data in the data items.

Paper of 5/30/97, pg. 8.

There are a number of things wrong with the above.

First, it is irrelevant whether or not the source or database files would be stored separately. The issue is that each of them is a separate data item, and each of them has a name, and for neither of them is the name dependent on all of the data and only the data in the file.

APPLICATION of FARBER, et al
Serial No. 08/425,160

As to the Examiner's assertion that "[o]ne of ordinary skill in the art would never separate the two," why does Gramlich say that there is "a need to insure [sic] that the database component files . . . match the current version of the source files." *Gramlich*, col. 2, lines 3-6? Precisely because the files get out of synch. In fact, the whole reason for Gramlich's naming scheme is to be able to match source files with their corresponding database component files. If, as the Examiner would have it, the files were never separate, then there would be no reason to have a special naming scheme.

Applicants question the Examiner's statement that "the unique name to a source file is therefore the same to the corresponding database file." Likewise, when the Examiner says "it would be redundant for Gramlich to specify unique identifiers for the source files and additional ones for the database files since unique identifiers for source files are inherently the same identifiers for the database files." Gramlich's source file name is not the same as the corresponding database file name. So what is the Examiner saying? That the database component file name includes the source file name? Well this is what applicants have been arguing. The database file name is determined from something other than the contents of the database file.

Applicants submit herewith corrected PTO Forms 1449 providing publication dates for all the documents cited in the Information Disclosure Statements and thank the Examiner for pointing out this omission.

APPLICATION of FARBER, et al
Serial No. 08/425,160

Applicants respectfully submit that this application is in condition for allowance, and an early Action allowing the claims is solicited.

Respectfully submitted,

CUSHMAN DARBY & CUSHMAN
INTELLECTUAL PROPERTY GROUP OF
PILLSBURY MADISON & SUTRO, L.L.P.

By 

Dale S. Lazar
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1100 New York Avenue, N.W.
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Washington, D.C. 20005-3918
(202) 861-3000
213987

08/960,079



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/960,079	10/24/97	FARBER	D 243063

CUSHMAN DARBY & CUSHMAN
FILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

LM41/0217

EXAMINER

HOMERE, J

ART UNIT	PAPER NUMBER
2776	22

DATE MAILED:

02/17/99

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

NOTICE OF ALLOWABILITY

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 and Issue Fee Due or other appropriate communication will be mailed in due course.

This communication is responsive to the amendment filed on 10/24/97

The allowed claim(s) is/are 1-45, 51-53, now renumbered as 1-48

The drawings filed on _____ are acceptable.

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

Applicant MUST submit NEW FORMAL DRAWINGS

because the originally filed drawings were declared by applicant to be informal.

including changes required by the Notice of Draftperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 10.

including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftperson.

Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s) _____

Notice of Draftperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

Interview Summary, PTO-413

Examiner's Amendment/Comment

Examiner's Comment Regarding Requirement for Deposit of Biological Material

Examiner's Statement of Reasons for Allowance

Serial Number: 08/960,079
Art Unit: 2776

Page 2

22 / F

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

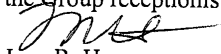
Authorization for this examiner's amendment was given in a telephone interview with 02/09/99 on Brian Siritzky, for Dale M. Lazar, Reg. No.28,872.

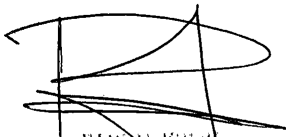
2. The application has been amended as follows:

Please delete claims 46-50 without prejudice or disclaimer to the subject matter thereof.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean R. Homere whose telephone number is (703)-308-6647. The examiner can normally be reached on Monday-Friday from 08:30 a.m.-5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black, can be reached on Monday-Friday from 6:30 AM to 4:00PM at the following telephone number(703)-305-9707.

Any response to this action should be mailed to: Commissioner of Patents and Trademarks Washington, D.C. 20231, **or faxed to:** (703) 308-9051, (for formal communications intended for entry), **Or:** (703) 305-9731 (for informal or draft communications, please label "PROPOSED" or "DRAFT"). Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist). The facsimile phone number for this group is (703) 308-5357. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.


Jean R. Homere
Patent Examiner, Au 2776
February 9, 1999


PAUL V. KULIK
PRIMARY EXAMINER
A-U-2776

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 4/11/95, are
A. not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.
B. objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:

- Black ink. Color.
- Not black solid lines. Fig(s) _____
- Color drawings are not acceptable until petition is granted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)

- Photographs are not acceptable until petition is granted. Fig(s) _____
- Photographs not properly mounted (must use bristol board or photographic double-weight paper). Fig(s) _____
- Poor quality (half-tone). Fig(s) _____

3. GRAPHIC FORMS. 37 CFR 1.84 (d)

- Chemical or mathematical formula not labeled as separate figure. Fig(s) _____
- Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) _____
- Individual waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s) _____

4. TYPE OF PAPER. 37 CFR 1.84(c)

- Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s) _____
- Erasures, alterations, overwritings, interlineations, cracks, creases, and folds copy machine marks not accepted. Fig(s) _____
- Mylar, velum paper is not acceptable (too thin). Fig(s) _____

5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

- 21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)
- 21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)
- 21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)
- 21.0 cm. by 29.7 cm. (DIN size A4)

- All drawing sheets not the same size. Sheet(s) _____
- Drawing sheet not an acceptable size. Sheet(s) _____

6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Paper size

21.6 cm. X 35.6 cm. (8 1/2 X 14 inches)	21.6 cm. X 33.1 cm. (8 1/2 X 13 inches)	21.6 cm. X 27.9 cm. (8 1/2 X 11 inches)	21.0 cm. X 29.7 cm. (DIN Size A4)
T 5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5 cm.
L .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

Margins do not conform to chart above.

Sheet(s) 1
 Top (T) Left (L) Right (R) Bottom (B)

7. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

- All views not grouped together. Fig(s) _____
- Views connected by projection lines or lead lines. Fig(s) _____
- Partial views. 37 CFR 1.84(h) 2

- View and enlarged view not labeled separately or properly. Fig(s) _____
- Sectional views. 37 CFR 1.84 (h) 3
- Hatching not indicated for sectional portions of an object. Fig(s) _____
- Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(j)

- Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)

- Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____
- Indication such as "actual size" or scale 1/2" not permitted. Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

- Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s) _____

11. SHADING. 37 CFR 1.84(m)

- Solid black shading areas not permitted. Fig(s) _____
- Shade lines, pale, rough and blurred. Fig(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)

- Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(1) Fig(s) _____
- Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____
- English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____
- Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s) 1-28 in part

13. LEAD LINES. 37 CFR 1.84(q)

- Lead lines cross each other. Fig(s) _____
- Lead lines missing. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

- Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s) _____

15. NUMBER OF VIEWS. 37 CFR 1.84(u)

- Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____
- View numbers not preceded by the abbreviation Fig. Fig(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

- Corrections not made from prior PTO-948. Fig(s) _____

17. DESIGN DRAWING. 37 CFR 1.152

- Surface shading shown not appropriate. Fig(s) _____
- Solid black shading not used for color contrast. Fig(s) _____

COMMENTS:

- All fig. legends are small -

08128410

REMINDER

Drawing changes may also require changes in the specification, e.g., if Fig. 1 is changed to Fig. 1A, Fig. 1B, Fig. 1C, etc., the specification, at the Brief Description of the Drawings, must likewise be changed. Please make such changes by 37 CFR 1.312 Amendment at the time of submitting drawing changes.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

1. Correction of Informalities--37 CFR 1.85

File new drawings with the changes incorporated therein. The application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application, should be placed on the back of each sheet of drawings in accordance with 37 CFR 1.84(c). Applicant may delay filing of the new drawings until receipt of the Notice of Allowability (PTOL-37). Extensions of time may be obtained under the provisions of 37 CFR 1.136. The drawing should be filed as a separate paper with a transmittal letter addressed to the Drawing Review Branch.

2. Timing of Corrections

Applicant is required to submit **acceptable** corrected drawings within the three-month shortened statutory period set in the Notice of Allowability (PTOL-37). If a correction is determined to be unacceptable by the Office, applicant must arrange to have acceptable correction resubmitted within the original three-month period to avoid the necessity of obtaining an extension of time and paying the extension fee. Therefore, applicant should file corrected drawings as soon as possible.

Failure to take corrective action within set (or extended) period will result in **ABANDONMENT** of the Application.

3. Corrections other than Informalities Noted by the Drawing Review Branch on the Form PTO 948

All changes to the drawings, other than informalities noted by the Drawing Review Branch, **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

Handwritten note: Please see drawing p. 114



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LM41/0217

CUSHMAN DARBY & CUSHMAN
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/960,079	10/24/97	048	HOMERE, J	2776 02/17/99
First Named Applicant	FARBER,		35 USC 154(b) term ext. = 0 Days.	

TITLE OF INVENTION DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS, WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME IDENTIFIER

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 243063		707-002.000	P25 UTILITY	YES	\$605.00	05/17/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE 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.

HOW TO RESPOND 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 changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box 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.

PATENT AND TRADEMARK OFFICE COPY



Receipt of
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

ATTENTION: APPLICATION DIVISION

#23

Inventor(s): FARBER et al.

Appl. No.: 08 | 960,079

Series Code ↑ | Serial No. ↑

Filed: October 24, 1997

Title: DATA PROCESSING SYSTEM USING
SUBSTANTIALLY UNIQUE IDENTIFIERS
TO IDENTIFY DATA

Date: March 30, 1998

Asst. Commissioner of Patents
and Trademarks
Washington, D.C. 202031

Sir:

REQUEST FOR CORRECTED FILING RECEIPT

- Attached is a copy of the official filing receipt from the PTO in the above application for which issuance of a corrected filing receipt is respectfully requested.
- There is an error with respect to the following data which is

<input checked="" type="checkbox"/> incorrectly entered Error in	and/or	<input type="checkbox"/> omitted Correct data
1. <input type="checkbox"/> Applicant's Name		1.
2. <input type="checkbox"/> Applicant's Address		2.
3. <input checked="" type="checkbox"/> Title		3. DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA
4. <input type="checkbox"/> Filing Date		4.
5. <input type="checkbox"/> Serial Number		5.
6. <input type="checkbox"/> Foreign/PCT Application Re		6.
7. <input type="checkbox"/> Other		7.

3. (complete the following applicable item A or B)

A. The correction(s) is/are not due to any error by applicant and no fee is due.

OR

B. The fee under 37 CFR 1.19(h) of \$25.00 (fee code 576) is paid as follows:

04/02/1998 HCAERO 00000011 08960079

01-FC:576 Enclosed is a check for \$25.00

Enclosed is a check for \$25.00 which if missing or inadequate please charge our Deposit Account under Order No. 7018/243063 for which purpose this Request is filed in duplicate.

RECEIVED
APR - 8 98
GROUP 2600

**Pillsbury Madison & Sutro LLP
Intellectual Property Group**

1100 New York Avenue, N.W.
Ninth Floor, East Tower
Washington, D.C. 2005-3918
Tel: (202) 861-3000
Atty/Sec: DSL/ded

By: Atty: Dale S. Lazar

Reg. No. 28872

Sig: [Signature]

Fax: (202) 822-0944

Tel: (202) 861-3527

(Attach Filing Receipt copy and PTO receipt PAT-103A)

PTO-103X
(Rev. 8-95)

FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231



APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
08/960,079	10/24/97	2771	\$1,705.00	243063	24	97	11

DARBY & CUSHMAN
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

DAVID A. FARBER, OJAI, CA; RONALD D. LACHMAN,
NORTHBROOK, IL.

CONTINUING DATA AS CLAIMED BY APPLICANT-
THIS APPLN IS A CON OF 08/425,160 04/11/95

FOREIGN FILING LICENSE GRANTED 01/28/98

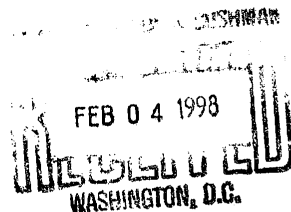
* SMALL ENTITY *

TITLE

DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO
IDENTIFY DATA

PRELIMINARY CLASS: 395

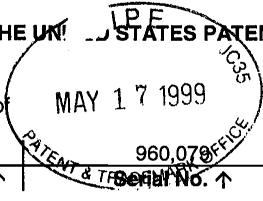
RECEIVED
APR - 8 98
GROUP 2600



22

1500 097 5-6-99 # 24 LJ

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Attention: OFFICE OF PUBLICATIONS



In re PATENT APPLICATION of
Inventor(s): FARBER et al.
Appln. No.: 08
Series Code ↑ 960,079 Serial No. ↑

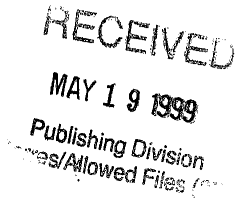
Allowed: February 17, 1999
Batch No.: P25
Atty. Dkt. PM 243063
M# Client Ref
(Our Deposit Account No. 03-3975)
(Our Order No. 7018 243063
C# M#

Filed: October 24, 1997

Title: DATA PROCESSING SYSTEM USING
SUBSTANTIALLY UNIQUE IDENTIFIERS TO
IDENTIFY DATA ITEMS, WHEREBY IDENTICAL DATA
ITEMS HAVE THE SAME IDENTIFIER Date: May 17, 1999

FILING OF FORMAL DRAWING(S) AFTER ALLOWANCE

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231



Sir:

- Please accept the herewith 31 sheet(s) (including any mentioned in line 7)
- of formal drawing(s) on A4 11" size paper
- of Figure(s) 1(a) - 28
- of which Figure(s) _____ is/are black and white photographic drawings
- which is/are in lieu of the informal drawing(s) filed earlier.
- which include the corrections required/approved by the Draftsperson/Examiner
- in PTO Paper No. 22 dated February 17, 1999

	Large/Small Entity	Fee Code
8. Original due date: May 17, 1999	<input type="checkbox"/> NONE	
9. Petition is hereby made to extend the original due date to cover (1 mo)	\$110/\$55 =	115/215
the date this response is filed for which the requisite fee is attached (2 mos)	\$380/\$190 =	116/216
(3 mos)	\$870/\$435 =	117/217
10. TOTAL FEE ENCLOSED	\$0	

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown in the heading hereof, for which purpose a duplicate copy of this sheet is attached. This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

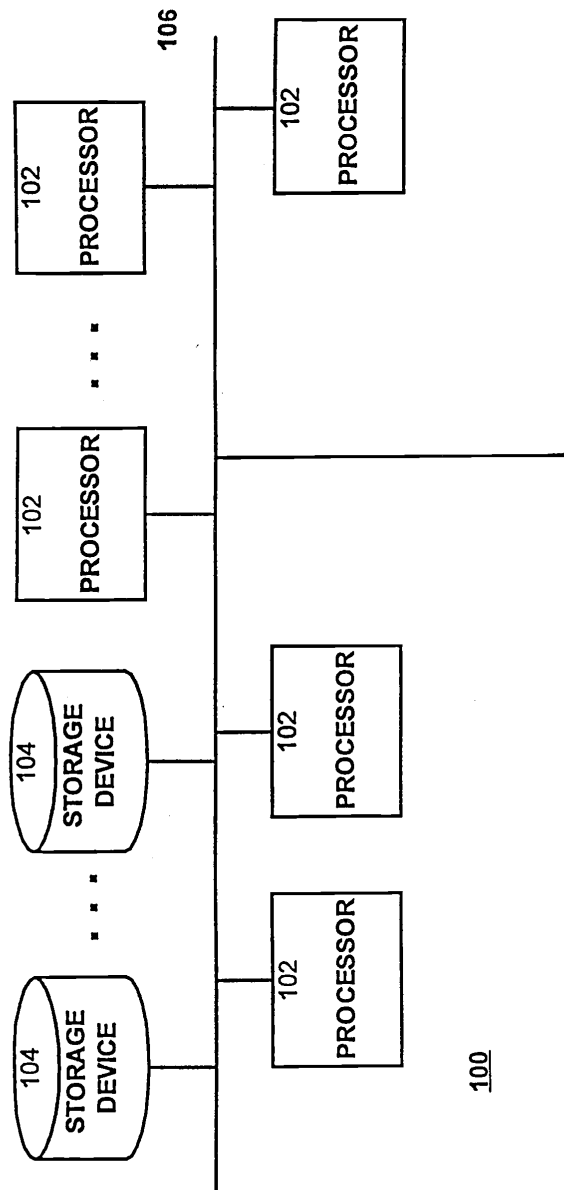
**Pillsbury Madison & Sutro LLP
Intellectual Property Group**

1100 New York Avenue, N.W.
Ninth Floor, East Tower
Washington, D.C. 20005-3918
Tel: (202) 861-3000
Atty/Sec: DSL/slb

By: Atty: Dale S. Lazar Reg. No. 28872
Sig: [Signature] Fax: (202) 822-0944
Tel: (202) 861-3527

NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments

FIG. 1(a)



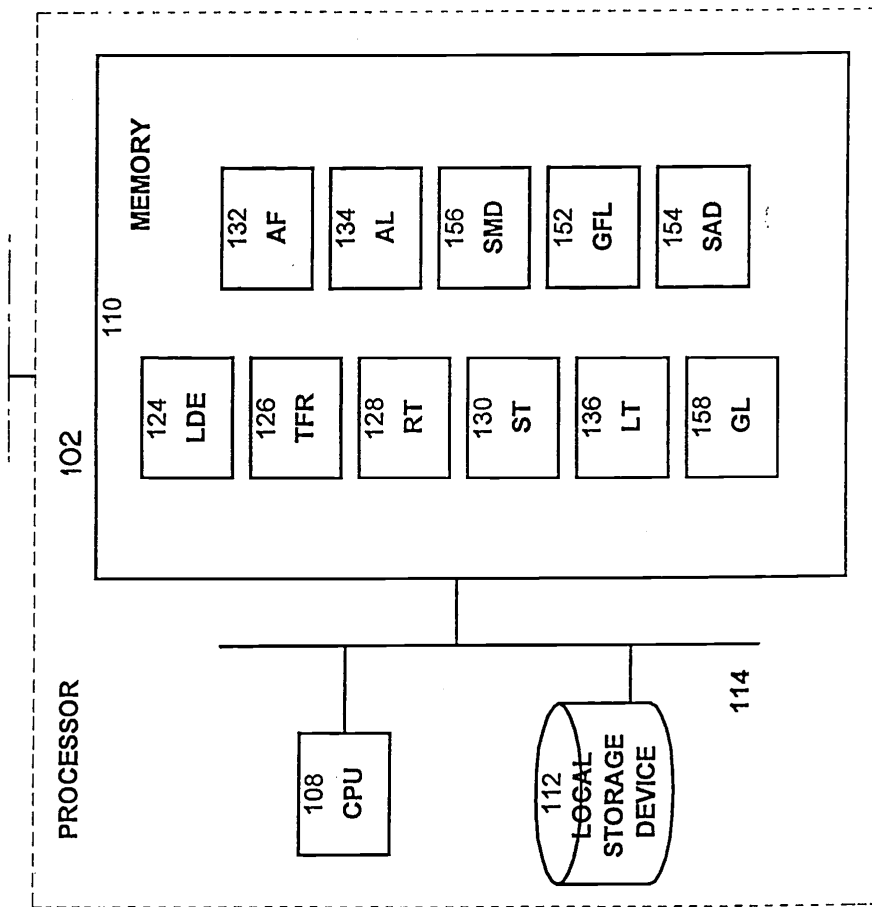


FIG. 1(b)

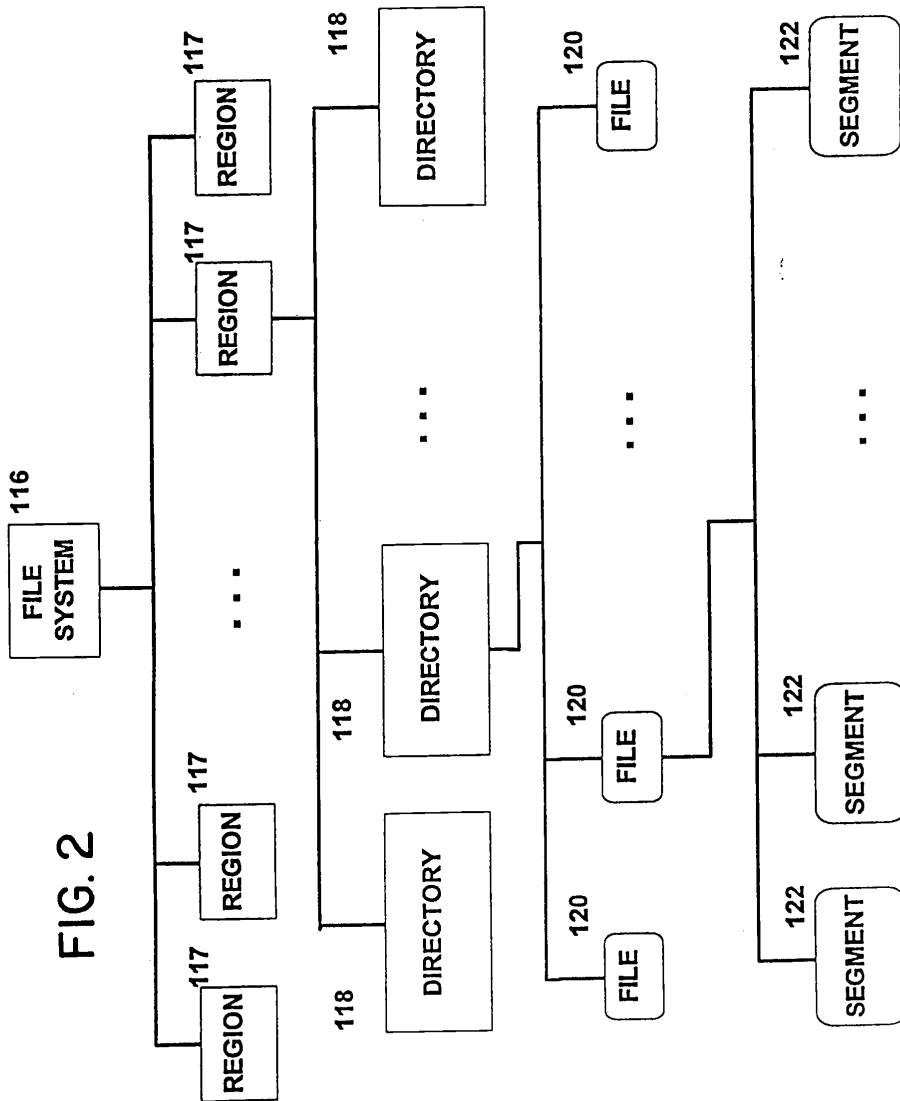


FIG. 2

FIG. 3

138

Region ID
Pathname
True Name
Type
File ID
Time of last access
Time of last modification
Safe flag
Lock flag
Size
Owner

FIG. 4

140

True Name
File ID
Compressed File ID
Source IDs
Dependent processors
Use count
Time of last access
Expiration
Grooming delete count

142

Region ID
Region file system
Region pathname
Region status
Mirror processor(s)
Mirror duplication count
Policy

FIG. 5

144

source ID
source type
source rights
source availability
source location

FIG. 6

146

Original Name
Operation
Type
Processor ID
Timestamp
Pathname
True Name

FIG. 7

148

date of entry
type of entry
True Name

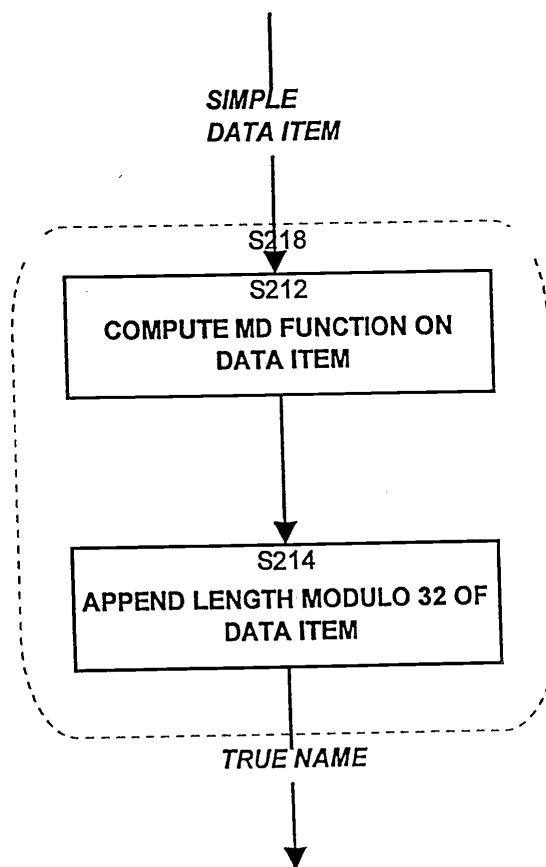
FIG. 8

150

True Name
licensee

FIG. 9

FIG. 10(a)



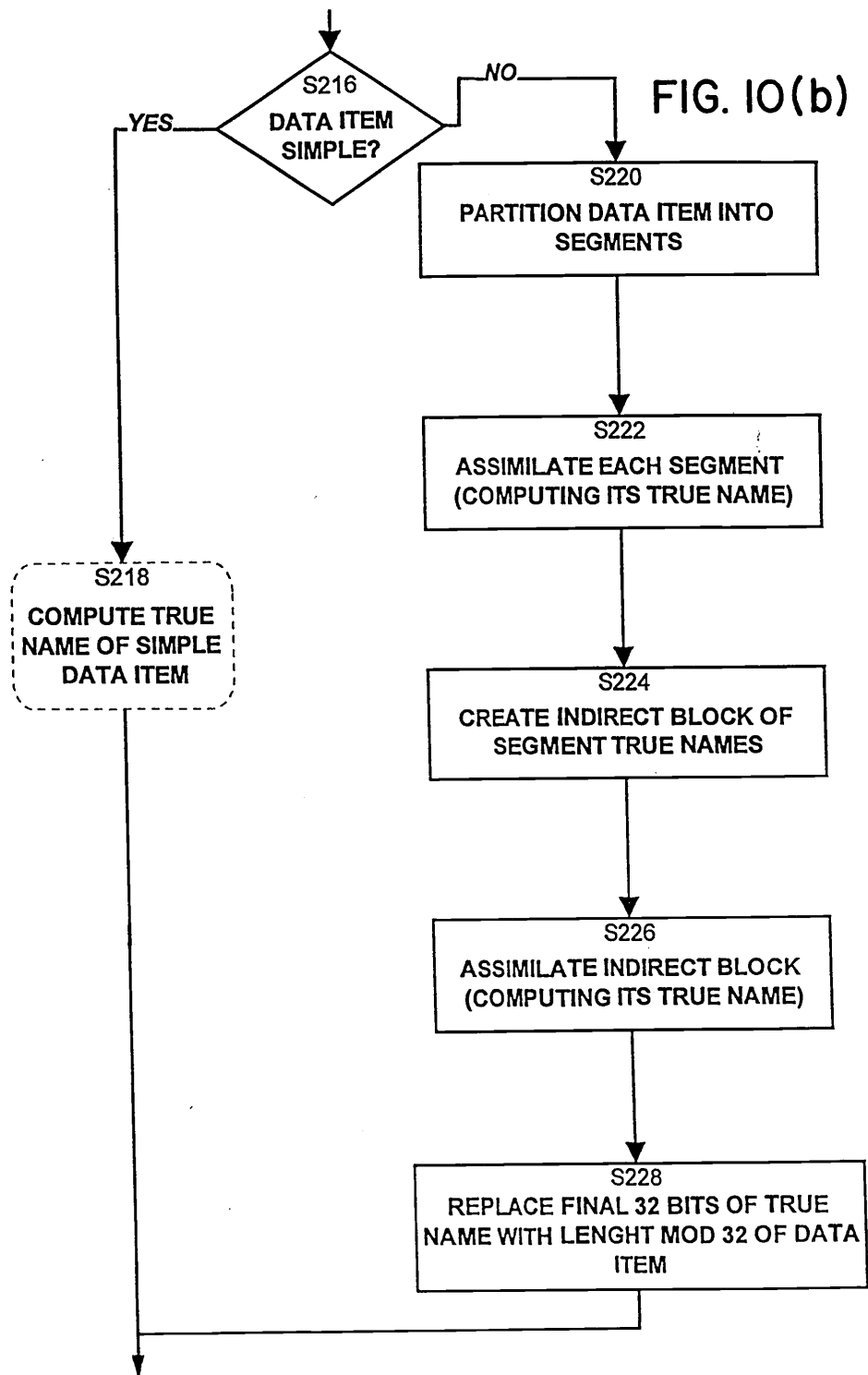


FIG. 11

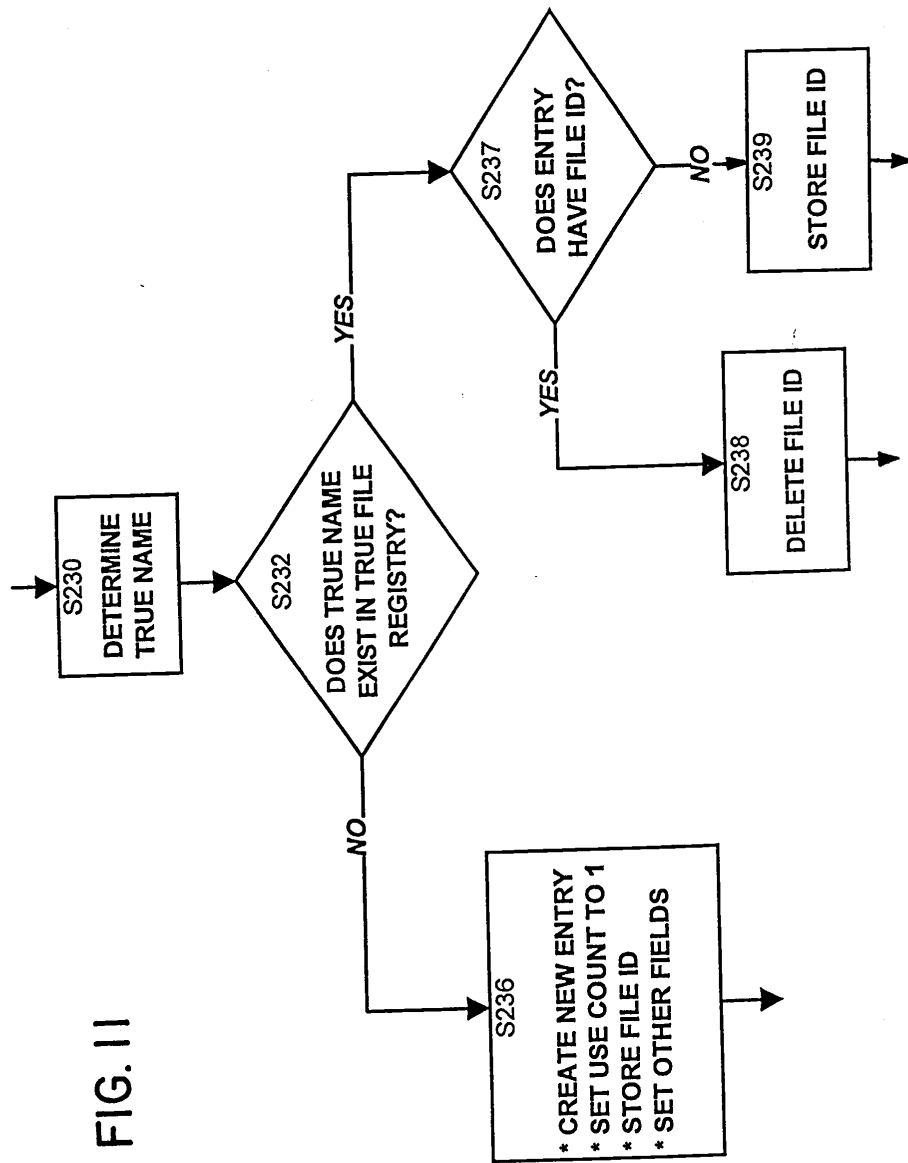


FIG.12

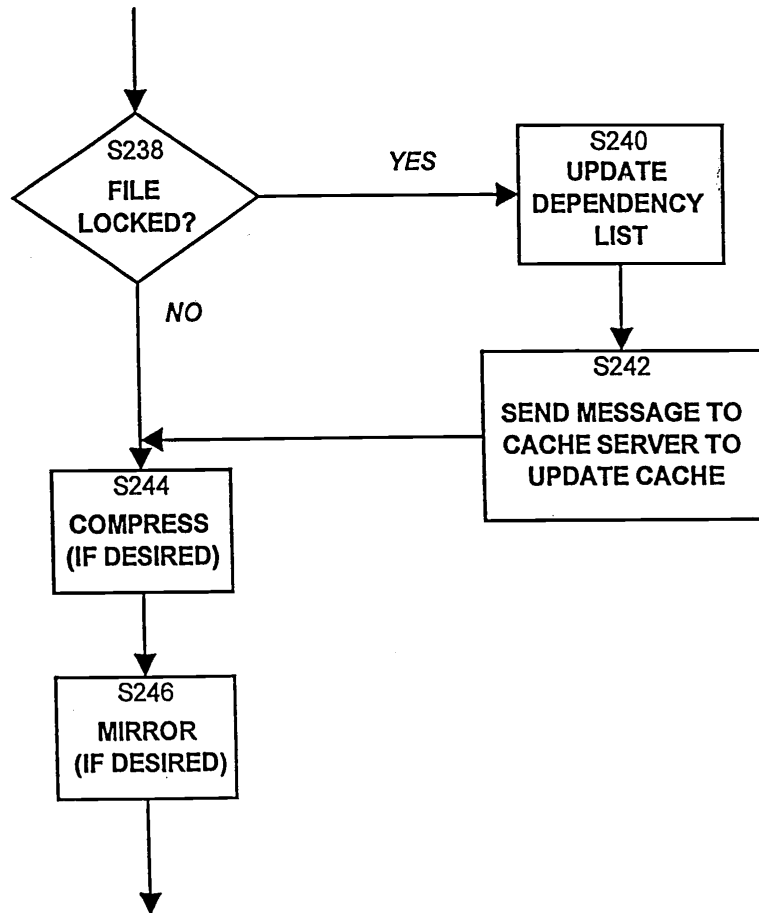
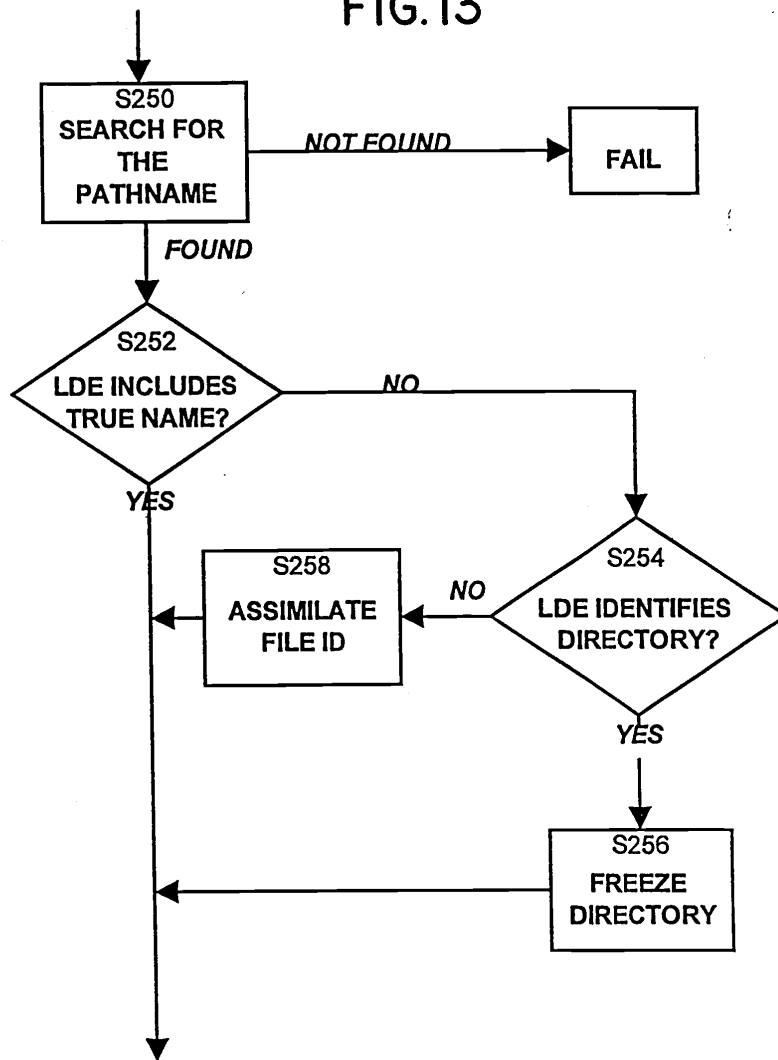


FIG. 13



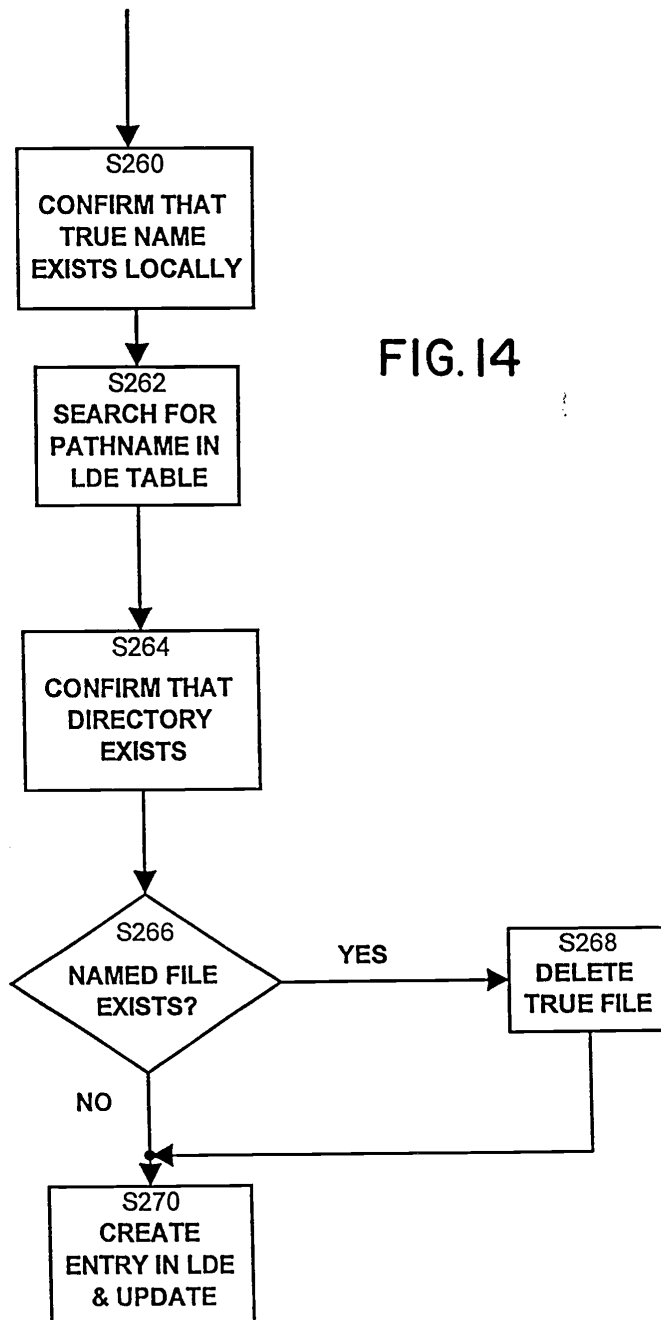


FIG. 14

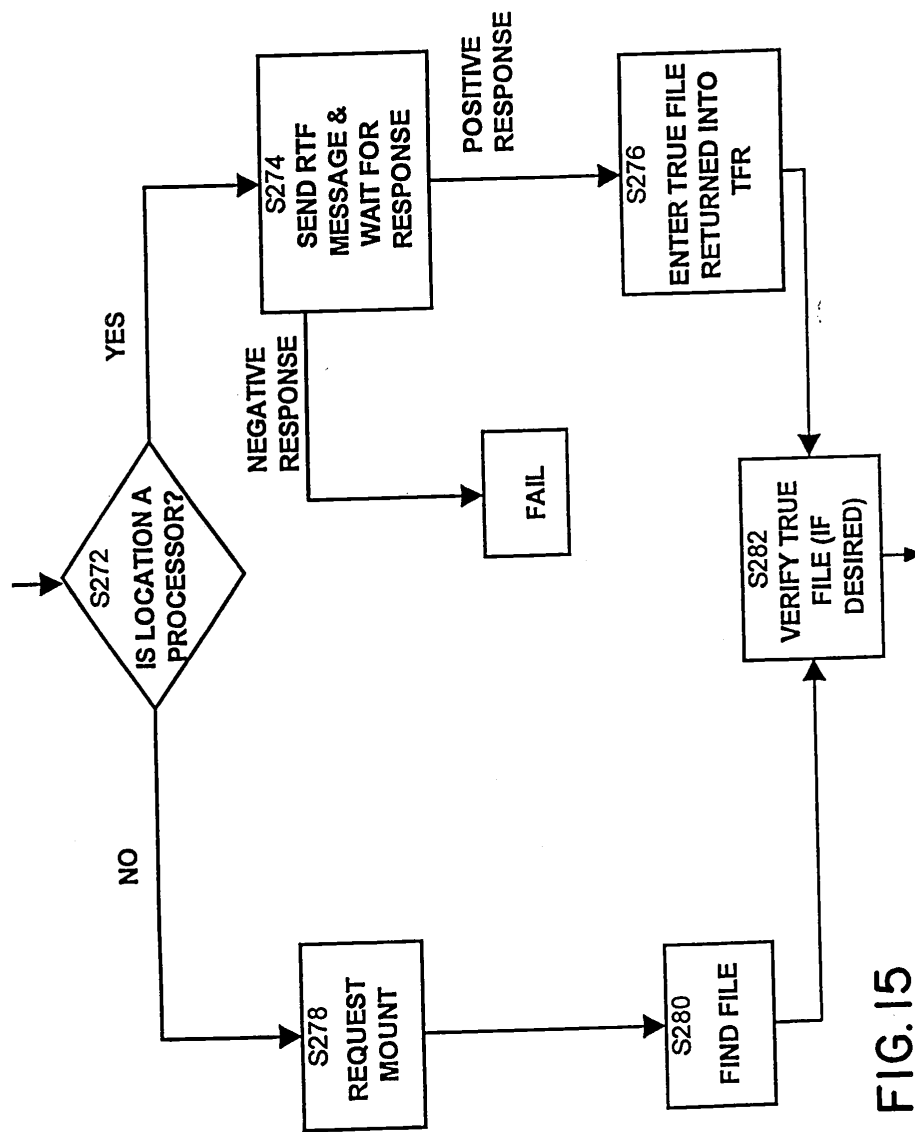


FIG. 15

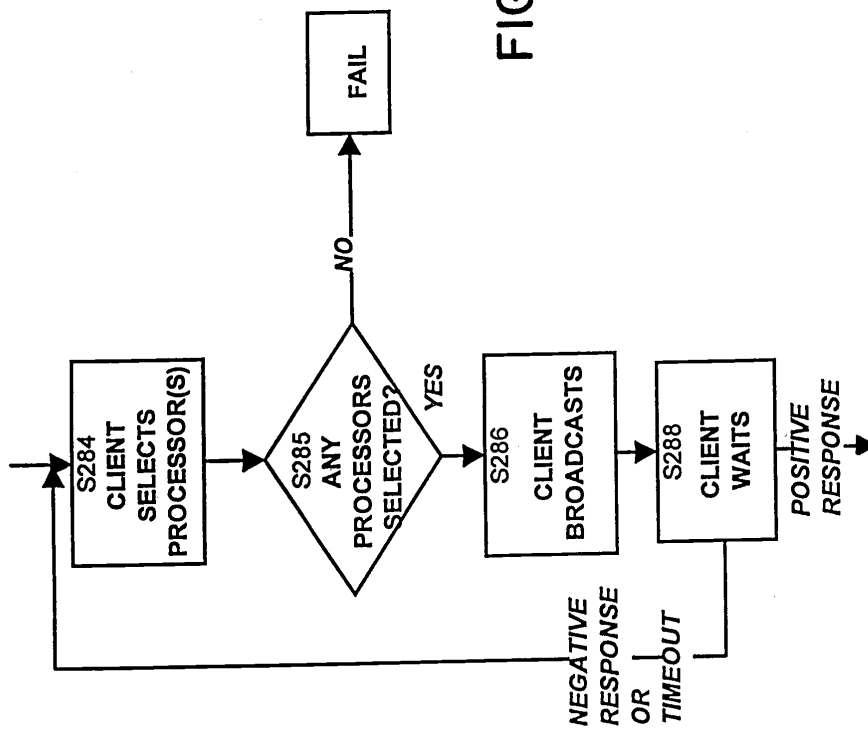


FIG. 16(a)

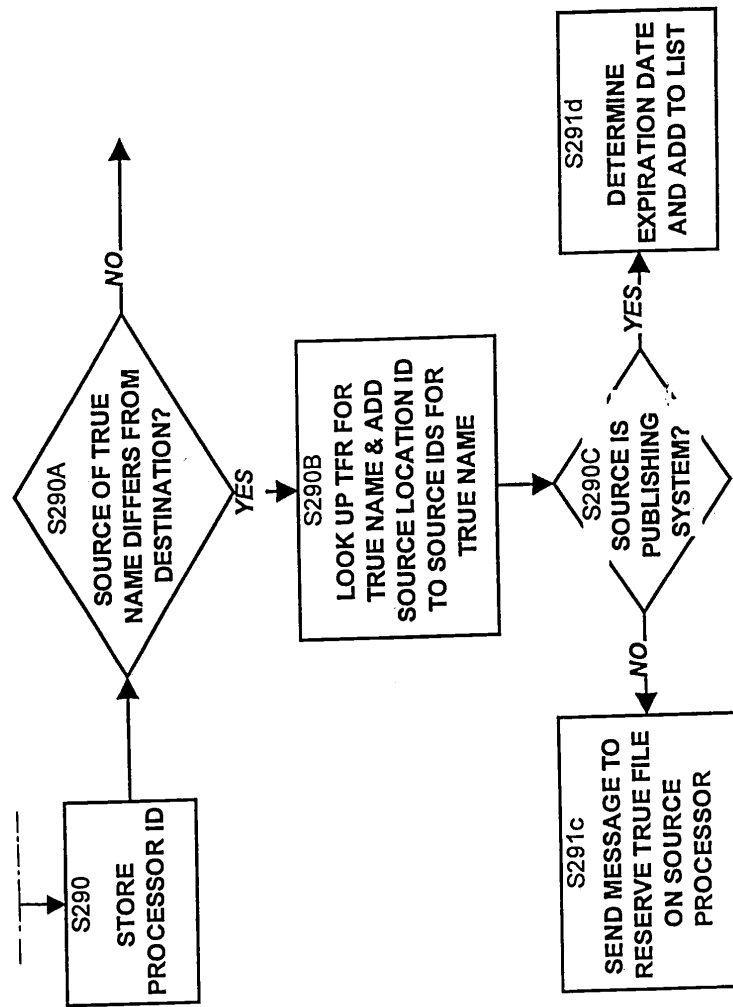


FIG. 16(b)

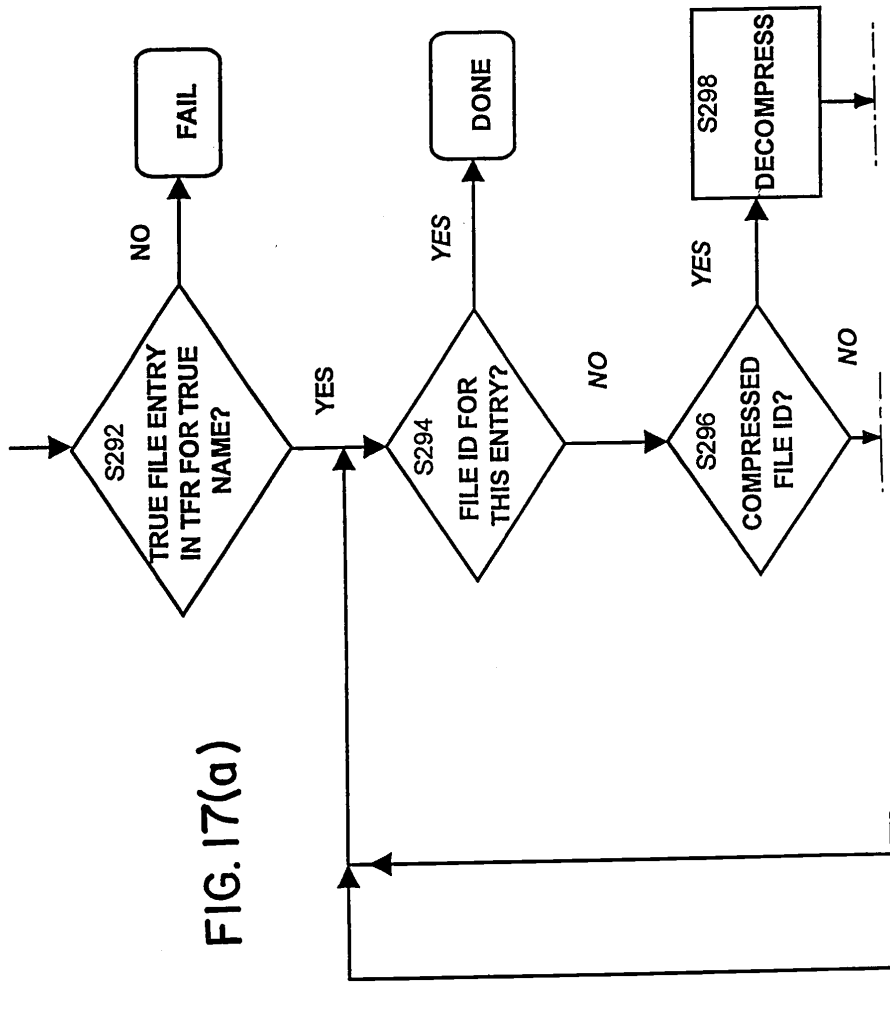


FIG. 17(a)

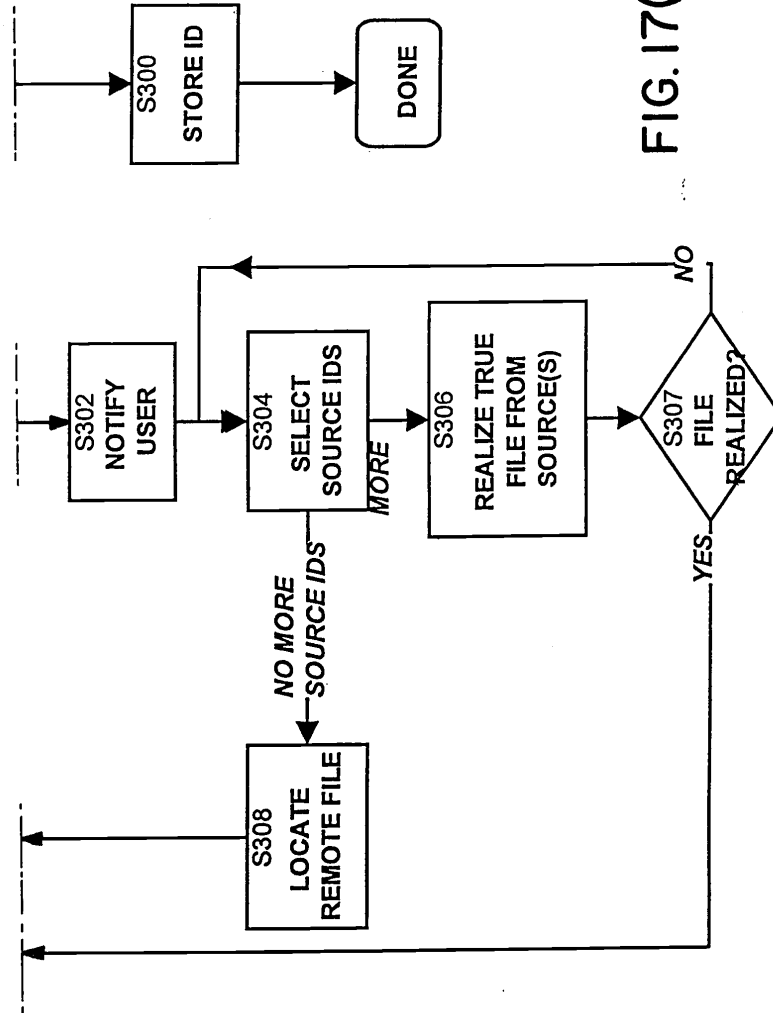
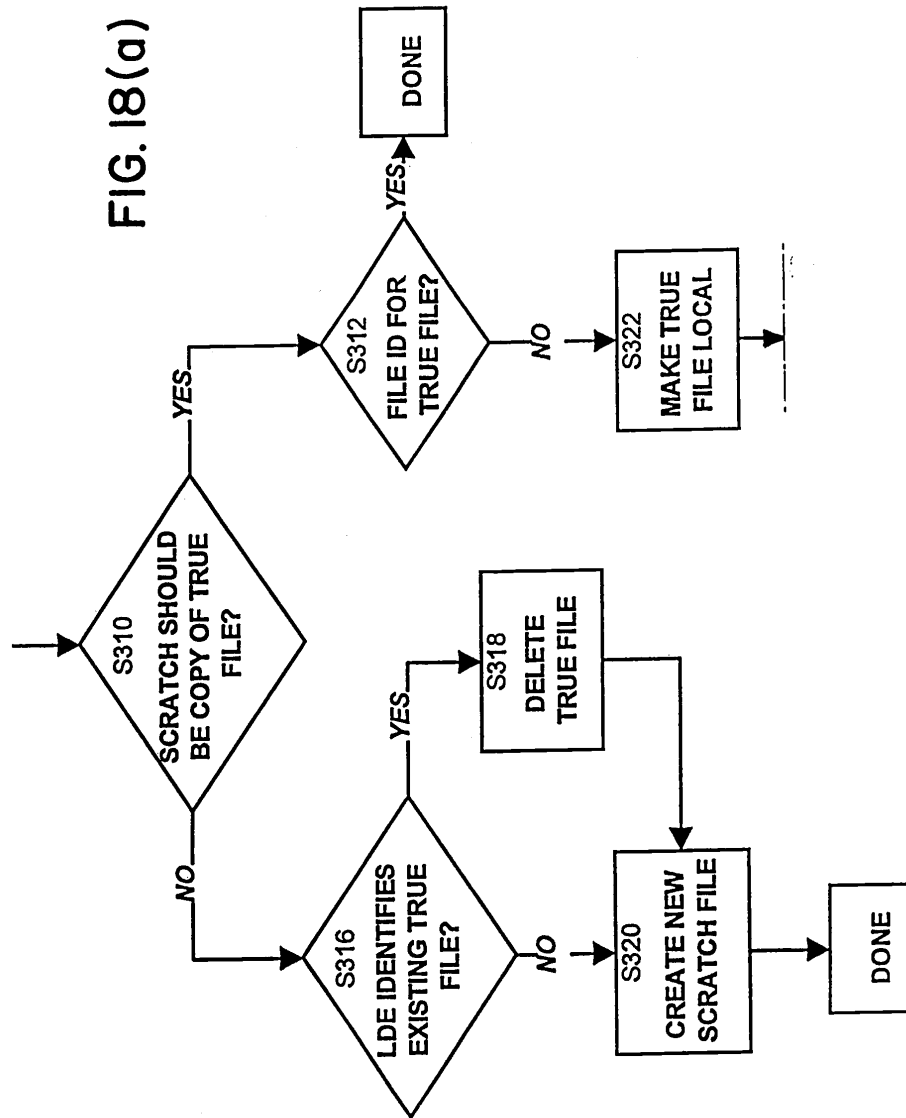


FIG. 17(b)

FIG. 18(a)



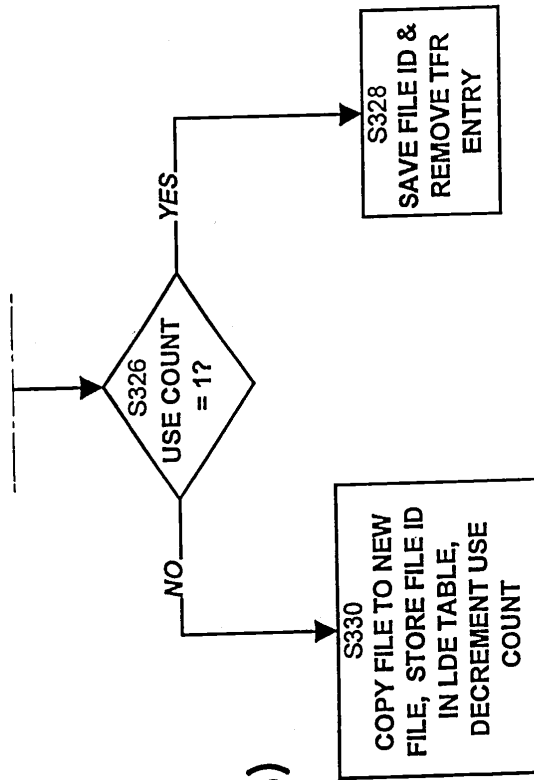
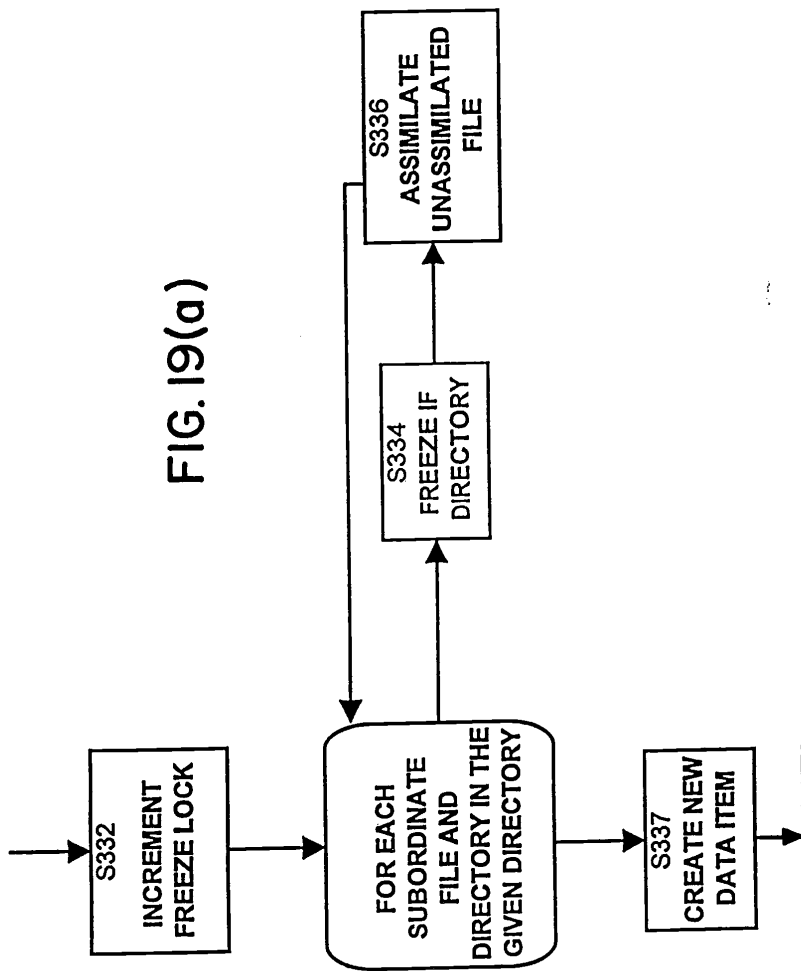


FIG. 18(b)

FIG. 19(a)



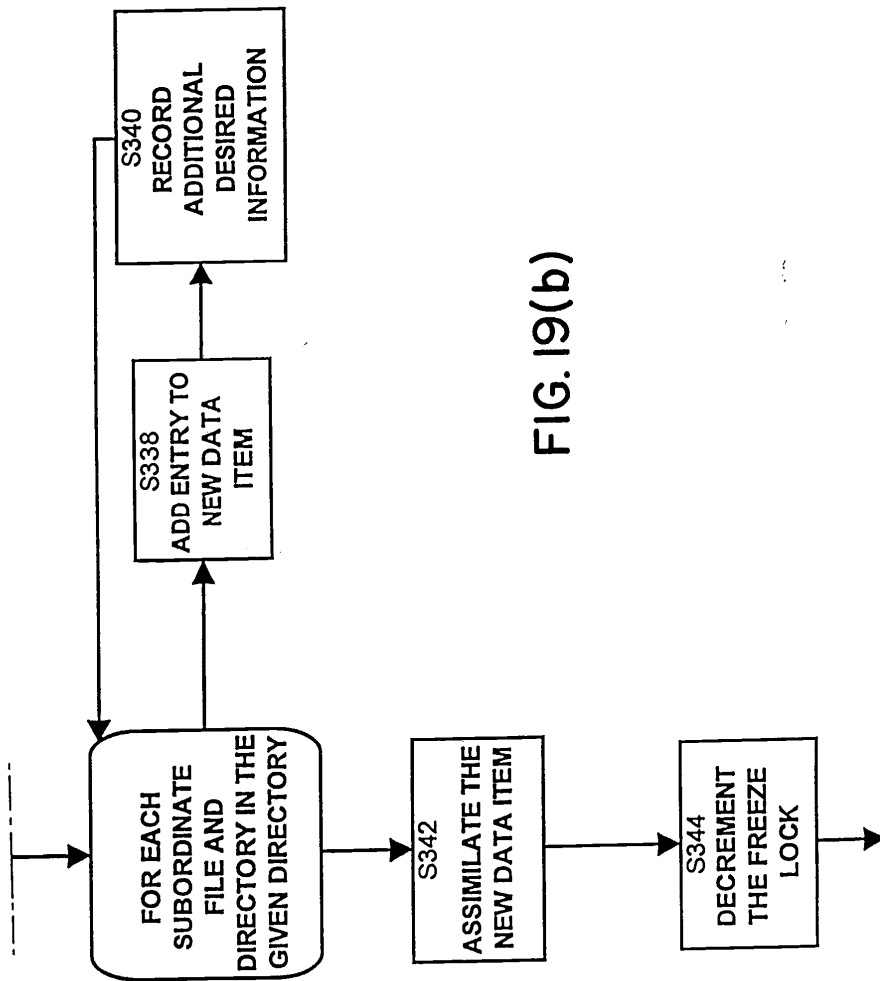


FIG. 19(b)

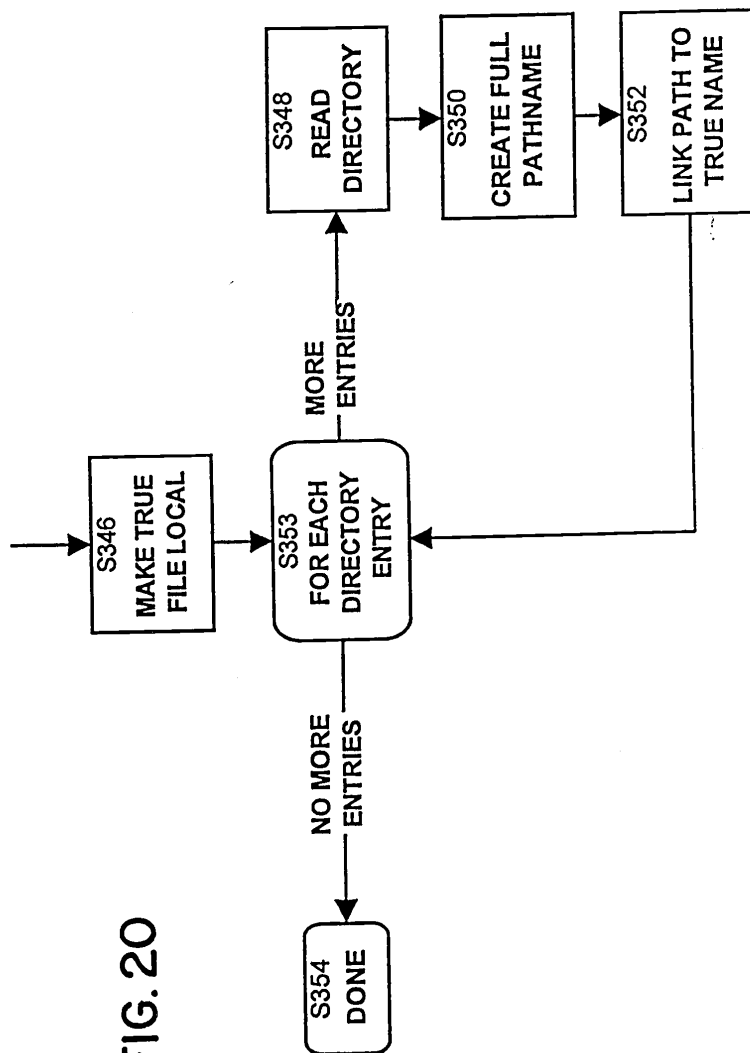


FIG. 20

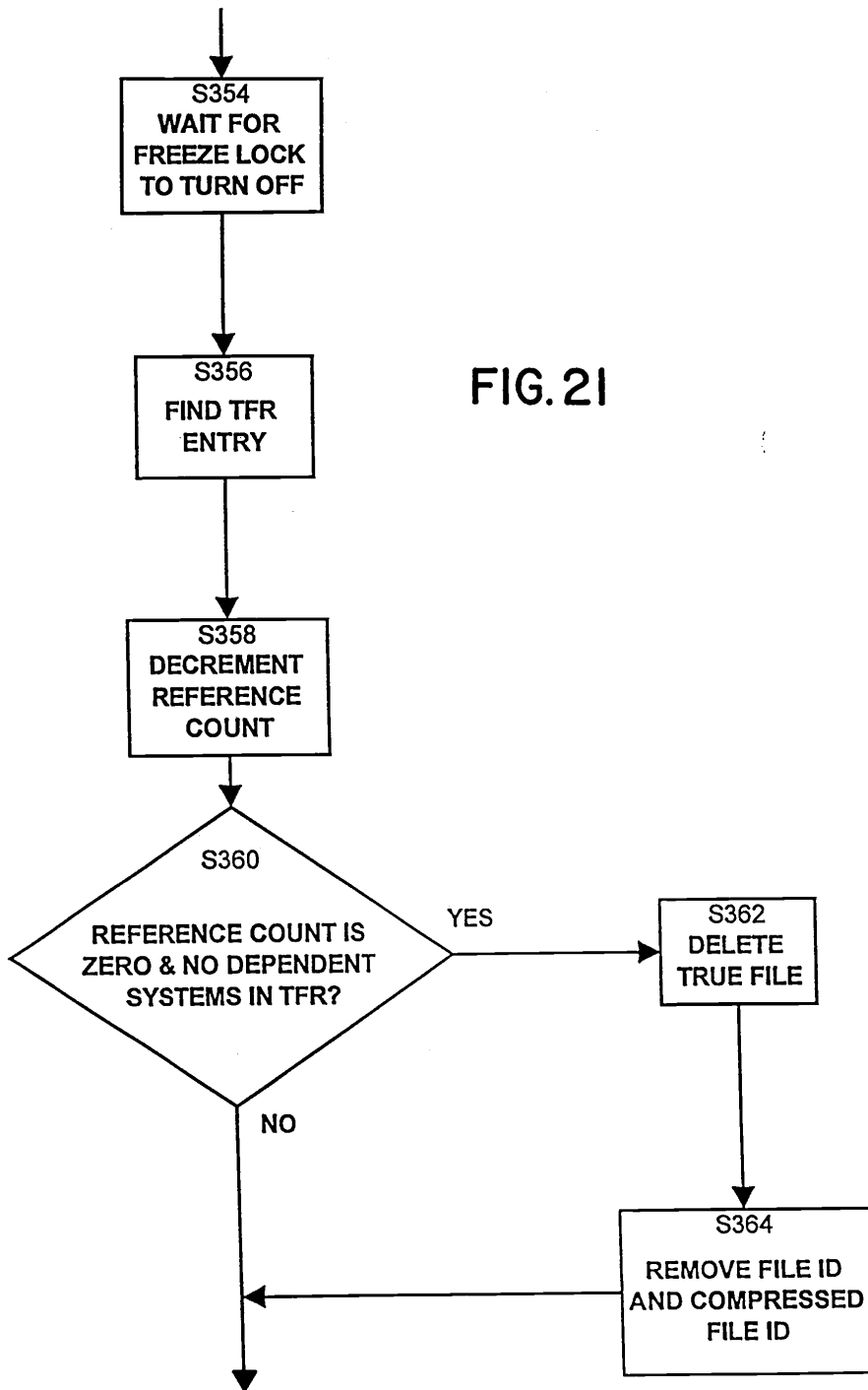


FIG.21

FIG. 22

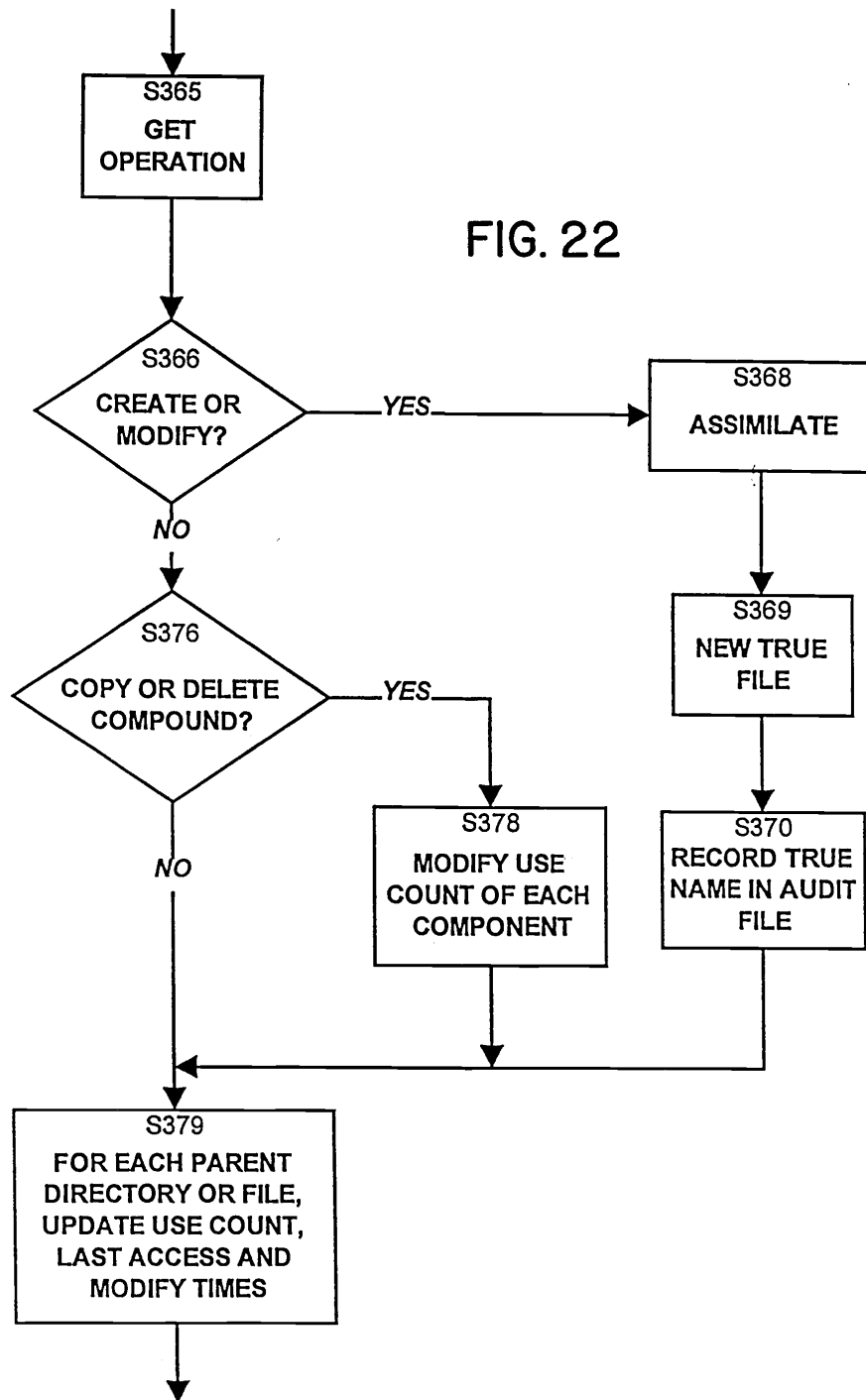
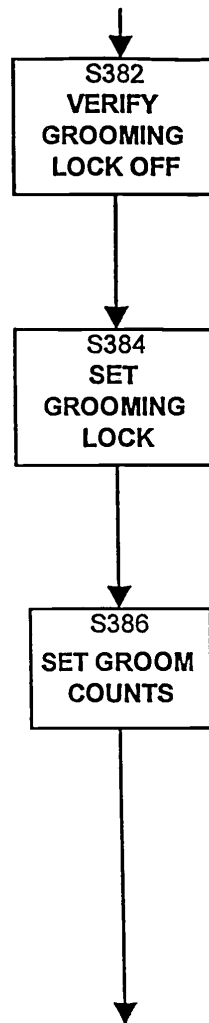


FIG. 23



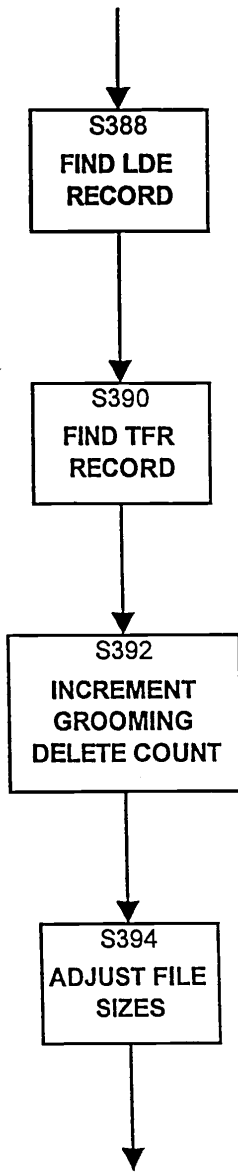


FIG. 24

FIG. 25

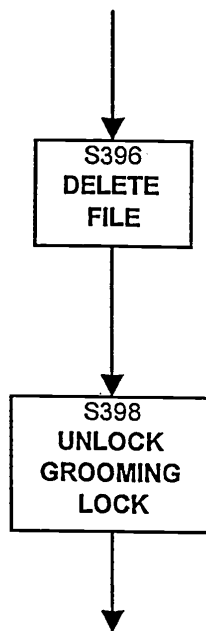
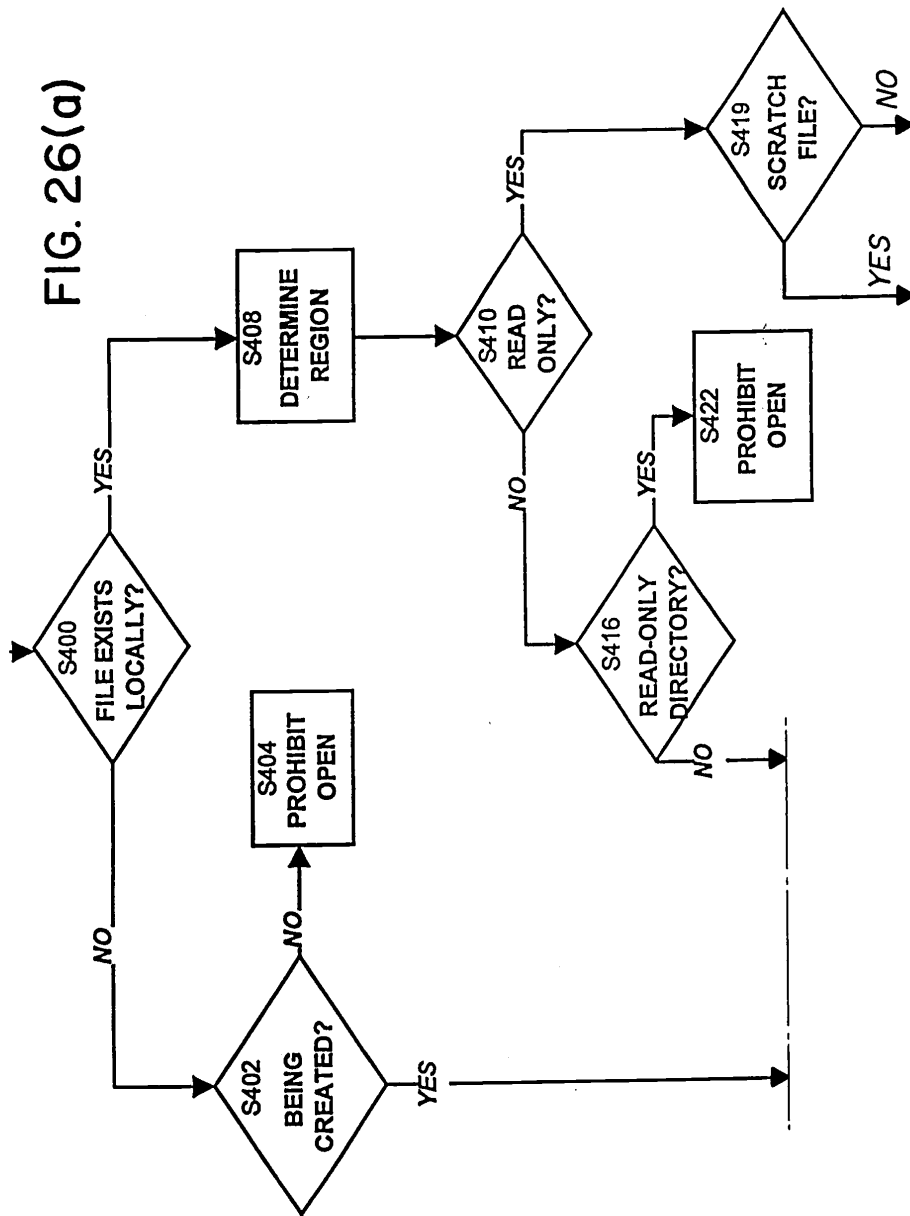


FIG. 26(a)



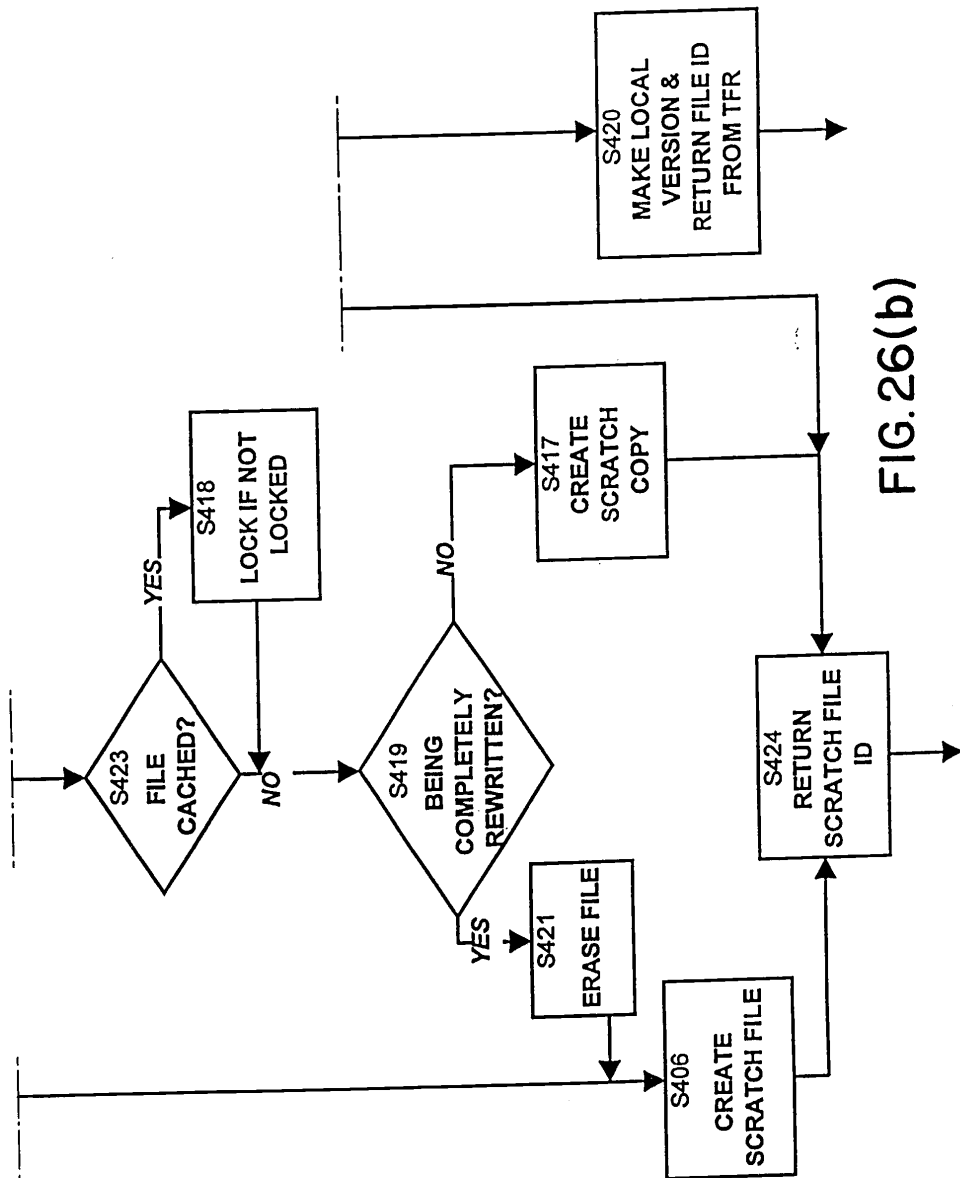


FIG. 26(b)

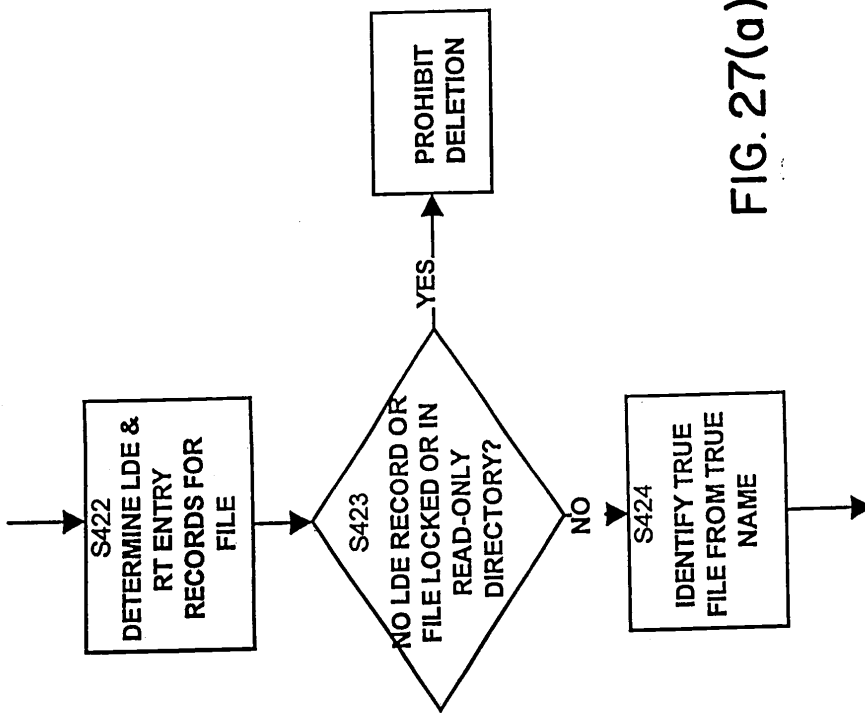


FIG. 27(a)

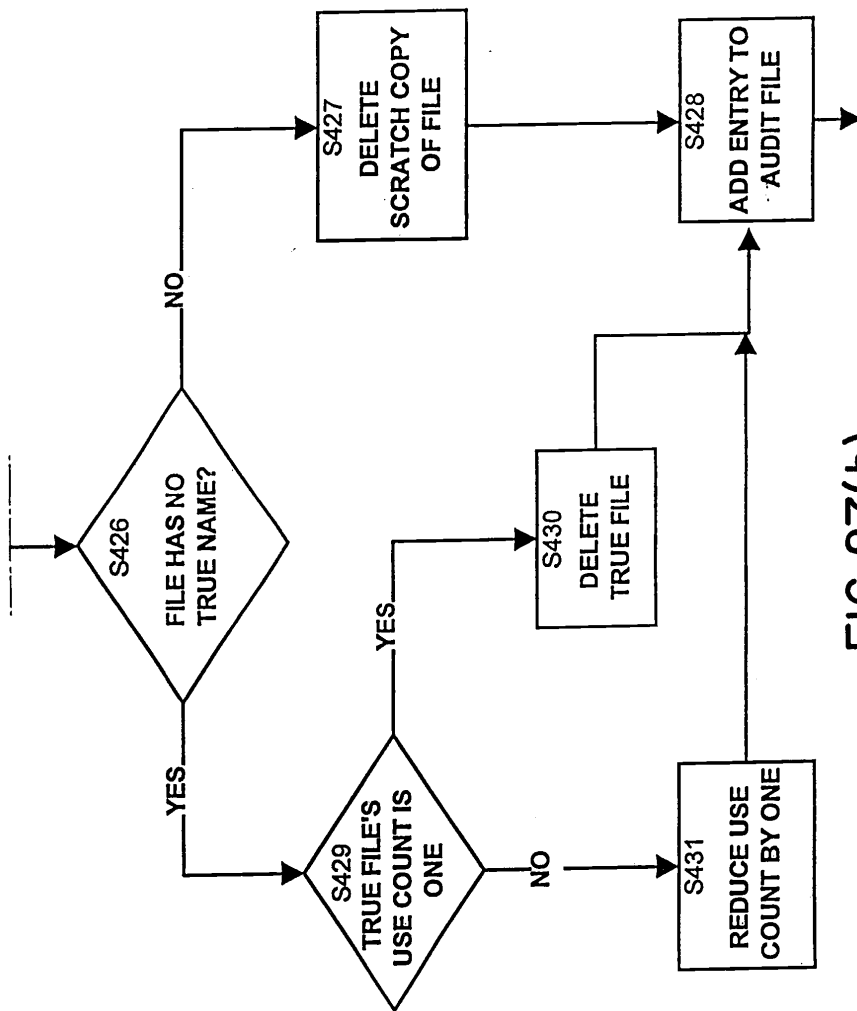
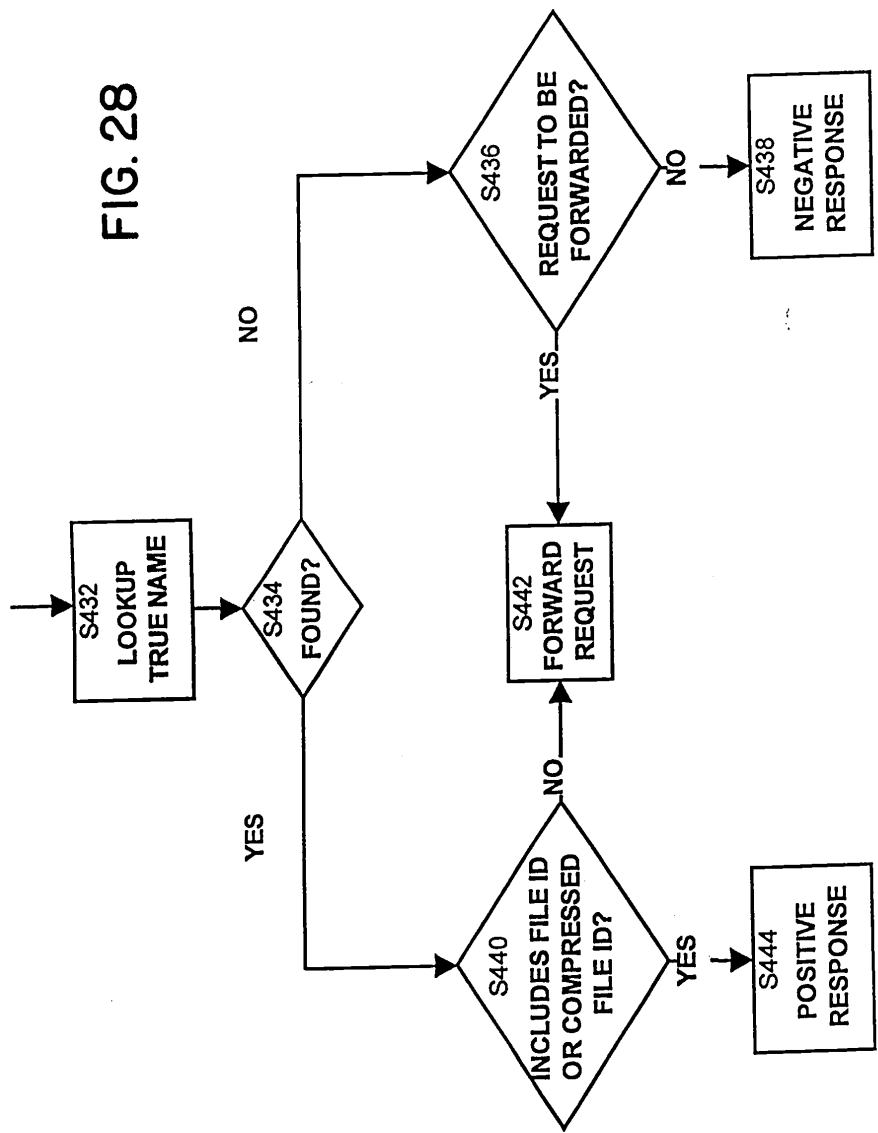


FIG. 27(b)

FIG. 28



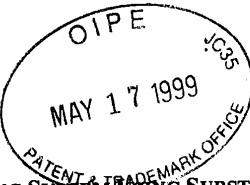
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of : ATTN: OFFICE OF PUBLICATIONS

FARBER ET AL. : Batch No. P25

Appln. No.: 08/960,079 : Examiner: HOMERE, J.

Filed: October 24, 1997 : Group Art Unit: 2776



K. Ward
8/20/99
#25 / Amatt
G
(Rule 312)
ent

For: DATA PROCESSING SYSTEM USING SUBSTANTIALLY
UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS ...

May 17, 1999

AMENDMENT UNDER 37 CFR § 1.312

RECEIVED

MAY 18 1999

Group 2700

Honorable Commissioner of Patents
And Trademarks
Washington, D.C. 20231

Sir:
Please amend this application as follows:

IN THE SPECIFICATION:

OK to enter
5/19/99
JCH

Page 7, line 31, change "FIGURE 1" to --FIGURES 1(a) and 1(b)--.

Page 8, line 9, change "FIGURE 1" to --FIGURES 1(a) and 1(b)--.

Page 30, line 13, change "FIGURE 16" to --FIGURES 16(a) and 16(b)--.

Page 31, line 22, change "FIGURE 17" to --FIGURES 17(a) and 17(b)--.

Page 32, line 28, change "FIGURE 18" to --FIGURES 18(a) and 18(b)--.

APPLICATION of **Farber** J., No.: 08/960,079

36
Page 33, line ~~28~~, change "FIGURE 19" to --FIGURES 19(a) and 19(b)--.

Page 38, line 11, change "FIGURE 26" to --FIGURES 26(a) and 26(b)--.

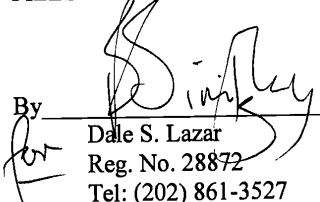
Page 41, line 16, change "FIGURE 27" to --FIGURES 27(a) and 27(b)--.

REMARKS

When formal drawings were prepared for this case, Figures 1, 16-19, 26 and 27, originally each on one page, had each to be split over two pages. The specification has been amended to change the numbering of the figures accordingly. No new matter has been added by these amendments, and approval of these amendments is respectfully requested. Since this Amendment is being filed at the same time as the payment of the issue fee, and is therefore not being filed after the issue fee, no Petition under 37 CFR § 312(b) is considered necessary.

Respectfully submitted,

PILLSBURY MADISON & SUTRO LLP

By  *by. No. 37497*
Dale S. Lazar
Reg. No. 28872
Tel: (202) 861-3527
Fax: (202) 822-0944

1100 New York Avenue, N.W.
Ninth Floor, East Tower
Washington, D.C. 20005-3918
(202) 861-3000

\\CDC\SYSTEMS\DATA\WP\PAT\63\243063\AMD312.DOC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Inventor(s): FARBER et al.
 Appln. No.: 08 960,079
 Series Code ↑ Serial No. ↑

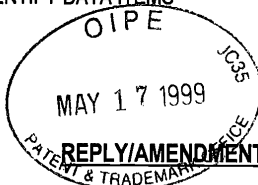
Group Art Unit 2.1.6
 Examiner: Homere, J.
 Atty. Dkt. PMS 243063
 M# Client Ref

Filed: October 24, 1997
 Title: DATA PROCESSING SYSTEM USING SUBSTANTIALLY
 UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS

(Our Deposit Account No. 03-3975)
 (Our Order No. 7018 243063
 C# M#

Asst. Commissioner of Patents
 Washington, D.C. 20231

Date: May 17, 1999 RECEIVED



MAY 18 1999
 Group 2700

Sir:

REPLY/AMENDMENT/LETTER

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated herein by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. "Small Entity" statement(s) filed						
<input type="checkbox"/> previously <input type="checkbox"/> herewith (No.)						
Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code	
2. Total Effective Claims	97	**minus 97 0	x \$18/\$9 =	+ 0	103/203	
3. Independent Claims	11	***minus 11 0	x \$78/\$39 =	+ 0	102/202	
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application) add				+ \$260/\$130 =	+ 0 104/204	
5. Original due Date: May 17, 1999 <input type="checkbox"/> NONE						
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached		(1 mo) \$110/\$55 = (2 mos) \$380/\$190 = (3 mos) \$870/\$435 =	+ 0		115/215 116/216 117/217	
7. Enter any previous extension fee paid since above original due date and subtract				-		
8. Extension Fee Attached				+ 0		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee				+ \$110/\$55 =	+ 0 148/248	
10. If IDS attached requires Official Fee, add				+ \$240 =	126	
or if Rule 97(d) Petition add				+ \$130 =	122	
11. After-Final Request Fee per rules 129(a) and 17(r)				+ \$760/380 =	+ 0 146/246	
12. No. of additional inventions for examination per Rule 129(b).....				x \$760/380 ea =	+ 0 149/249	
13. Petition fee for				+		
14. TOTAL FEE ENCLOSED =					\$0	

15. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".
 16. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.
 17. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

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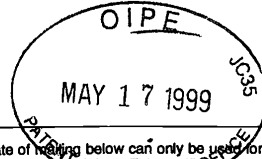
This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.
 Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Madison & Sutro LLP
 Intellectual Property Group
 By Atty: Dale S. Lazar Reg. No. 28872
 Sig: [Signature] Fax: (202) 822-0944
 Tel: (202) 861-3000 Tel: (202) 861-3527
 Atty/Sec: DSL/BS:kim

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Assistant Commissioner for Patents
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Note: The certificate of mailing below can only be used for domestic mailings of the Issue Fee 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.

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I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

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LM41/0217
CUSHMAN DARBY & CUSHMAN
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/960,079	10/24/97	048	HOMERE, J	2776 02/17/99
First Named Applicant	FARBER,	35 USC 154(b) term ext. =	0 Days.	

TITLE OF INVENTION: DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS, WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME IDENTIFIER

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2-243063	707-002.000	P25	UTILITY	YES	\$605.00	05/17/99

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.
- 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) attached.

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.
- 1 Pillsbury Madison
- 2 & Sutro LLP
- 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. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE **KINETECH, INC.**

(B) RESIDENCE: (CITY & STATE OR COUNTRY) **Northbrook, Illinois**

Please check the appropriate assignee category indicated below (will not be printed on the patent)

Individual Corporation or other private group entity government

- 4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):
- Issue Fee
- Advance Order - # of Copies _____
- 4b. The following fees or deficiency in these fees should be charged to:
- DEPOSIT ACCOUNT NUMBER 03-3975 (order no.)
- (ENCLOSE AN EXTRA COPY OF THIS FORM) 7018/243063
- Issue Fee
- Advance Order - # of Copies _____

The COMMISSIONER OF PATENTS AND TRADEMARKS is requested to apply the Issue Fee to the application identified above.

(Authorized Signature) Dale S. Lazar (Date) 5/17/99

NOTE: The Issue Fee 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 Patent and Trademark Office.

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CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

LM41/0217
CUSHMAN DARBY & CUSHMAN
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/960,079	10/24/97	048	HOMERE, J	2776 02/17/99
First Named Applicant	FARBER, 35 USC 154(b) term ext. = 0 Days.			

TITLE OF INVENTION: DATA PROCESSING SYSTEM USING SUBSTANTIALLY UNIQUE IDENTIFIERS TO IDENTIFY DATA ITEMS, WHEREBY IDENTICAL DATA ITEMS HAVE THE SAME IDENTIFIER

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2 243063	707-002.000	P25	UTILITY	YES	\$605.00	05/17/99

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of FTO form(s) and Customer Number are recommended, but not required.

- 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) attached.

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.

- 1 Pillsbury Madison
- 2 & Sutro LLP
- 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. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE **KINETECH, INC.**

(B) RESIDENCE (CITY & STATE OR COUNTRY) **Northbrook, Illinois**

Please check the appropriate assignee category indicated below (will not be printed on the patent)

- Individual
- Corporation or other private group entity
- government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

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(Authorized Signature) Dale S. Lazar (Date) 5/17/99
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
08/960,079	10/28/97	FARRER	

LM41/0827
CUSHMAN DARBY & CUSHMAN
PILLSBURY MADISON & SUTRO
1100 NEW YORK AVE NW
NINTH FLOOR EAST TOWER
WASHINGTON DC 20005-3918

EXAMINER
HOMERE

#26

ART UNIT PAPER NUMBER
2776

DATE MAILED: 08/27/99

A. The petition filed _____ under 37 CFR 1.312(b) is granted.
The paper has been forwarded to the examiner for consideration on the merits.

B. The amendment filed 05/17/99 under 37 CFR 1.312 has been considered, and has been:

- 1. entered
- 2. entered as directed to matters of form not affecting the scope of the invention (0.3311).
- 3. disapproved. A report appears below.
- 4. entered in part. A report appears below.

Report:

Jean R. Homere
Patent Examiner
A.U. 2777

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