

## Appendix 5 Answers for Hypothetical Claim Sets (Group2)

### (Business Claim Set 1)

Questionnaire	USPTO	JPO
IPC:	G0 6F 17/60	G06F17/60
Filing Date (D.M.Y.):	01.01.2000	01.01.2000
1. Scope of the claim	<p>The claim was not literally interpreted for the lack of clarity (explain).</p> <p>Comments: “Best insurance policy” is indefinite. The Examiner interpreted the term as the cheapest policy or the policy that most closely meets the customer’s requirements.</p> <p>Therefore, claim 1 was understood by the Examiner to be a method of selecting the best insurance policy for a customer by retrieving information from an insurance policy and customer, posing questions to the customer and retrieving response information from the customer, automatically analyzing and rating the insurance policy based on the policy and customer information and repeating the above process until the best insurance policy is selected on behalf of the customer.</p> <p>Claim 2 was interpreted by Examiner as a method of processing data on a mobile terminal which has wireless access to a central database by retrieving information from an insurance policy and customer, posing questions to the customer and retrieving response information from the customer, automatically analyzing and rating the insurance policy based on the policy and customer information and repeating the above process until the best insurance policy is selected on behalf of the customer.</p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p> <p>(comment) In claim 2, it is not clear what kind of information the central database and mobile terminal store. Also, Timing and content of the information which is sent between them is not clear. (Is all data downloaded to the mobile terminal at first for the processing, or does the terminal ask for data to the host each time it has a query?). However, claims are interpreted literally.</p>

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<p><b>2 . Sources of search</b></p>	<p>Please write summary here. Please write details in “Annex I. Documents considered to be relevant” and “Annex II. Search strategies.” See attached search report Classified Search 705/4 US Patent files (STN service) East Service (Foreign and Derwent database) Dialog – financial and business files Main strategy in text searches was to search for a system which generated insurance policy or insurance quote information.</p>	<p>F-Term Foreign patent document search CSDB JOIS (file 010: science and technology information file, file 060: Nikkei sangyo newspaper file, file 070: Nikkan Kogyo newspaper file) USPTO Web Patent Databases(The Internet, <a href="http://www.uspto.gov/patft/index.html">http://www.uspto.gov/patft/index.html</a>) esp@cenet (The Internet, <a href="http://ep.espacenet.com/">http://ep.espacenet.com/</a>) DIALOG(INSPEC)</p>
<p><b>3. Search strategies</b></p>	<p>Please write summary here. Please write details in “Annex I. Documents considered to be relevant” and “Annex II. Search strategies.”  Classified search was done in class 705/4 as the claims were related to processing insurance policy information. Then proceeded with an STN text search for USPATFULL searching for insurance policy programs that rank, score or weigh the policies found and determine the best or most desirable policy. Then, performed a non-patent literature search using the same search strategy but concentrating on a reference which discloses determining the best or most desirable policy. Finally, completed text searching by accessing the foreign patent and Derwent databases using East for systems that provide quotes for insurance policies.</p>	<p>Following is the order of the search; 1. F-Term 2. CSDB 3. Foreign patent documents 4. JOIS(file 010) science and technology information file 5. JOIS(file 060) Nikkei Sangyo Shimbun (newspaper) file 6. JOIS(file 070) Nikkan Kogyo Shimbun (newspaper) file 7. USPTO Web Patent Databases 8. esp@cenet</p>
<p><b>4. Citation of the closest prior art</b></p>	<p>Claim 1 lacks novelty in view of US Pat No. 5,655,085 (Ryan et al.) (hereinafter Ryan) As to claim 1, Ryan anticipates all the claim limitations. Ryan discloses a computer based method of selecting an insurance policy (see abstract, col. 1 lines 38-51 and col. 5 lines 45-65) comprising 1) retrieving unique information from a customer (i.e., insured) and an in insurance policy (i.e., life insurance information ) ( col 10 lines 43-51); 2) retrieving one or more questions for the customer (i.e., consult with the prospective applicant to obtain such</p>	<p>Please see the Annex I and II. D1: JP, 8-305747, A, D2: JP, 5-324684, A, D3: JP, 8-194749, A, Comments about claim 2: a) D2 discloses wireless connection between the central database and mobile terminals. Guided by the teaching, a person skilled in the art would have easily arrived at the claimed invention by applying the teaching of D2 to the teaching about connection between the central database</p>

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	<p>information as the prospective insured's age and sex, the amount of life insurance desired) (col. 14 line 67- col. 15 line 10 and lines 45-54); 3) receiving a customer answer, indicative of the customer's response to each of the questions (i.e., consult with the prospective applicant to obtain such information as the prospective insured's age and sex, the amount of life insurance desired....solicit insured's answers to four underwriting questions ) ( col. 14 line 67 - col. 15 line 10 and lines 45-55); 4) automatically scoring the insurance policy based upon the unique information and the answers (col. 1 lines 41-49), and iterating steps 1 through 4 multiple times with different policies until a best insurance policy is selected (col. Lines 41-49, col. 4 lines 47-54, col. 19 lines 20-35 and col. 22 lines 7-25).</p> <p>Claim 2 lacks an inventive step as being obvious over Ryan. As to claim 2, Ryan disclose the claim limitations for the same reasons as described for claim 1, above. Ryan does not explicitly disclose a mobile terminal with wireless communication means. However, the Examiner takes Official Notice that it was notoriously well known in the computer arts at the time of Applicant's invention for personal computers (PC) to be mobile and include wireless communication means (e.g. portable PC, notepad). The motivation was for the user to be able to carry the PC. Furthermore, the PC has wireless communications means in order to reduce the amount of information required to be stored on the computer thereby decreasing the size and weight and increasing the performance of the mobile PC. The agent may visit the customer at the customer's home and at the customer's convenience. Customers no longer are forced to visit the agent at an office during set hours. Use of a mobile PC permits an agent to visit the customer's house at any time</p>	<p>and mobile terminals via network described in D1. b) D2 discloses wireless connection between the central database and mobile terminals. Guided by the teaching, a person skilled in the art would have easily arrived at the claimed invention by applying the teaching of D2 to the teaching of D3.</p>
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	<p>of the day, thereby increasing the probability of a sale of an insurance policy. It would have been obvious to one of ordinary skill at the time of Applicant's invention to include a mobile terminal with wireless communication means within the Ryan system in order to permit the insurance seller to visit the customer's house at the customer's convenience thereby increasing the likelihood of a sale of the insurance policy.</p> <p>Other documents considered to be relevant:</p> <p>"QuickQuote" reference which discloses a computer based system that quotes for customers the best insurance policy from various insurers.</p> <p>Other documents defining the general state of the art:</p> <p>US 4,876,648 A (LLOYD) see abstract, US 4,832,526 A (LUCHS et al.) see abstract, Ellsworth, "Staking a claim on the Internet", page 4, lines 1-7, and Krohm, "A survey of insurance and regulatory applications on the Internet", page 10 lines 7-36.</p>	
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[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	US 5,665,085 A (RYAN et al) 5, August, 1997.	see abstract, col. 1, lines 38-51, col. 4, lines 47-54, col. 5, lines 45-65, col. 10, lines 42-51, col. 14, lines 16-25, col. 14, line 67 – col. 15, line10 and col. 19, lines 20-35		1-2	L5
A	US 4,876,648 A (LLOYD) 24, October, 1989	See abstract		1-2	From Classified Search of Class 705 subclass 4
A	US 4,832,526 A (LUCHS et al)	See abstract		1-2	From Classified Search of Class 705 subclass 4
X	Anonymous. QuickQuote:A technology Company that sells Insurance (QuickQuote, a firm that sells insurance products, has a formula that includes one part insurance agency and one part technology). Bank technology News. July, 1997, p. 13.	Page 4, lines 1-30		1-2	S5
A	Ellsworth, Jill H. Staking a claim on the Internet. Nation's Business. Vol. 84, No. 1. Jan. 1996, pp. 29-31.	Page 4, lines 1-7.		1-2	S5
A	Krohm, Gregory. A survey of insurance and regulatory applications on the Internet.	Page 10, lines 7-36.		1-2	S5

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

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Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
L1	STN (USPATFULL)	(Insurance or whole()life or term()life) (p) (scor? or rank? or weigh? or rating)
L2	"	L1 (p) (optimiz? or best or desirable)
S1	Dialog (files 9, 15, 16, 18, 20, 148, 160, 169, 267, 473, 475, 481, 485, 583, 621, 623, 624, 625, 626, 635, 636, 637)	(insurance or whole()life or term ()life) (5n) quot?
S2	"	S1 (s) (optimiz? or best or lowest()cost or cheapest)
S3	"	S2 and (computer or software or automat?)
S4	"	S3 and remote?
S5	"	RD
L1	EAST (EPO or JPO)	Insurance
L2	"	Whole near life
L3	"	Term near life
L4	"	L1 or L2 or L3
L5	"	Quot?
L6	"	L4 or L5
L1	EAST (Derwent)	Quot?
L2	"	insurance
L3	"	Whole near life
L4	"	Term near life
L5	"	L2 or L3 or L4
L6	"	L5 near10 L1
L7	"	L5 and L1

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	JP,8-305747,A	Claim 1 (for steps (1) - (5)), paragraph [0019] - [0021] What is taught: Wireless connections between the central database and mobile terminals.	No	1,2	1
X	JP,8-194749,A	[0025] - [0038] for (1), (2), and (3), [0039] for (4), [0045] for (5)	No	1	3
Y		[0025] - [0038] for (1), (2), and (3), [0039] for (4), [0045] for (5)		2	3
A	Takuya YOSHIDA, "Sales support system to promote intelligent sales activity," NIKKEI COMPUTER, Nikkei Business Publications, Inc., 30.07.1990, No. 231, p.p.91-102.			1,2	4
A	Nikkei Sangyo newspaper, 22.08.1991, p.1 "Sales know-how into portable terminals: compulsory automobile liability insurance; by Yasuda fire & marine insurance Co., Ltd. and Canon sales Co., Inc."			1,2	9

(\*1) In case of "Y" documents, the combination should also be indicated.

(\*2) It should be indicated in case of "X" or "Y" documents and avoids indication "Entire document."

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

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Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	F-Term	G06F15/21@T * ("HOKEN" (Japanese translation of "insurance") * "SENTAKU" (Japanese translation of "select"))/TX
2	F-Term	G06F15/21 * ("HOKEN (insurance)" * "SENTAKU (select))/TX * ["TANMATSU" (Japanese translation of "terminal")
3	F-Term	G06F15/02*"HOKEN (insurance)"/TX
4	CSDB	("HOKEN (insurance)"* "GAIKOU-IN"(Japanese translation of "insurance salesperson"))/TX
5	Foreign Patent docs.	(" HOKEN (insurance)" * " SENTAKU (select)"/TX
6	Foreign Patent docs.	(" HOKEN (insurance)" * " TANMATSU (terminal)"/TX
7	JOIS(¥file 010)	" HOKEN (insurance)" * " SENTAKU (select)" * " KENSAKU " (Japanese translation of "search")
8	JOIS(¥file 010)	" HOKEN (insurance)" * " EIGYOU " (Japanese translation of "sales") * " TANMATSU (terminal)"
9	JOIS(¥file 060)	" HOKEN (insurance)" * " EIGYOU (sales)" * " TANMATSU (terminal)"
10	JOIS(¥file 070)	" HOKEN (insurance)" * " EIGYOU (sales)" * " TANMATSU (terminal)"
11	USPTO Web Patent Databases	Terminal AND policy AND clas/705/4
12	esp@cenet	(policy)<TITLE OR ABS> AND (G06F17/60D)<EC>
13	DIALOG(INSPEC)	INSURANCE AND TERMINAL AND POLICY
14	DIALOG(INSPEC)	INSURANCE AND TERMINAL AND SALES

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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**(Business Claim Set 2)**

Questionnaire	USPTO	JPO
<b>IPC:</b>	G06F 17/60	G06F17/60
<b>Filing Date (D.M.Y.):</b>	01.01.2000	01.01.2000
<p><b>1. Scope of the claim</b></p>	<p>“Statement of “intended Use” in the preamble was neglected (point out the neglected part of the claim.) The claim was not literally interpreted for the lack of clarity (explain).</p> <p>Comment: The intended use in the preambles of claims 1 and 2 reciting “managing client accounts” were neglected as the body of the claims did not include any steps that provided account management.</p> <p>Regarding clarity, in claim 1 line 2, “said client”, line 4 “said interviews” (note the use of the plural), and “said determining means in the last line of claim 1 all lack antecedent basis. In claim 2, line 3 “the answers”, line 6 “said interviews” (again note the plural) and line 9 “said determining means” all lack antecedent basis.</p> <p>As a result, claim 1 was understood and interpreted to recite a method comprising the steps of interviewing a client to determine associated assets, liabilities and obligations and to determine said client’s financial objectives; recording information obtained as a result of said interview on a client interview form; mathematically determining if it is more advantageous for the client to use incoming funds to reduce obligations and liabilities or to invest in additional assets; counseling said client based on the results of said determining step.</p> <p>Claim 2 was understood and interpreted to recite a method of processing data comprising the steps of interviewing a client by displaying an interview form including questions on a display screen of a portable computer showing the interview form to the client and having answers to the</p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p>

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	<p>questions entered on the interview form by a voice recognition unit to determine associated assets, liabilities and obligations of the client and to determine said client's financial objectives; printing information obtained as a result of said interview on a client interview form; mathematically determining if it is more advantageous for the client to use incoming funds to reduce obligations and liabilities or to invest in additional assets; counseling said client based on the results of the determining step by displaying a counseling form on the display screen.</p>	
<p><b>2 . Sources of search</b></p>	<p>Please write summary here. Please write details in "2. Documents considered to be relevant" and "3. Search strategies."          Classified Search: 705/30,35,36,37,38 (US Classification)          Text Searches: STN, West, Dialog          The main strategy in the text searches was generally to find paying off debt and investing in stocks and synonyms thereof.</p>	<p>F-term system. JOIS (JICST), DIALOG (Derwent WPI, Accounting and Tax Database)</p>
<p><b>3. Search strategies</b></p>	<p>Please write summary here. Please write details in "2. Documents considered to be relevant" and "3. Search strategies."          Classified Search was performed first in 705/35 as the claims are related to financial planning. As a result of the method of the claims, stocks or other financial instruments may be bought or sold so 705/36,37 were searched next. As interviewing the client is claimed, 705/38 was searched for analogous art that would interview clients to input financial data. Finally, 705/30 was searched as tracking the implementation of the decision would involve accounting.          Next STN was searched using the file USPATFULL with the general strategy mentioned above. Next the foreign art was searched on West and non-patent literature was text searched on Dialog with the same strategy. Due to the level of recall in the Dialog search, additional strategies</p>	<p>Order of the search:          1. F-term          2. JICST          3. WPI          4. Accounting and Tax database          (Note: Although enough documents to be cited in the reason for the refusal were found merely by searching F-term database, other databases were searched additionally. The order of the database search is typical order for this technology field.)</p>

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<p><b>4. Citation of the closest prior art</b></p>	<p>were added.</p> <p>Claim 1 is rejected for lacking novelty over Atkins (US 5,884,285). As per claim 1, Atkins teaches a method of managing client accounts (abstract) comprising interviewing said client to determine associated assets, liabilities and obligations and to determine said client's financial objectives (lines 5-6 of the abstract, col. 12 lines 6-26, fig. 6), recording information obtained from a client (col. 9 lines 2-4, 38-65), mathematically determining if it is more advantageous for the client to use incoming funds to reduce obligations and liabilities or to invest in additional assets (col. 4 lines 17-38, col. 16 lines 11-16, col. 19 line 50 to col. 20 line 10) and counseling said client based on the results of said determining means (col. 21 lines 8-12). While Atkins fails to explicitly teach recording the obtained information on a "client interview form", the entry of the client data into the system of Atkins as noted above with the menus of fig. 6 is seen to effectively provide an electronic client interview form.</p> <p>Claim 2 is rejected for lacking an inventive step over Atkins (US5,884,285) in view of Norris (US 5,870,721). As per claim 2, Atkins teaches a method of processing data to manage client accounts comprising steps of interviewing a client by displaying an interview form on the display screen of a computer showing the interview form to the client (lines 5-6 of the abstract, col. 12 lines 6-26, fig. 6) and having the answers to these questions entered on the interview form to determine associated assets, liabilities and obligations of the client and to determine said client's financial objectives (col. 9 lines 2-4, 38-65); mathematically determining if it is more advantageous for the client to use incoming funds to reduce obligations and liabilities or to invest in additional assets (col. 4 lines 17-38, col. 16 lines 11-16, col. 19 line 50 to col. 20 line 10); counseling said</p>	<p>US 5644727 is the closest prior art document (basic reference) for claims 1 and 2. In particular, the document discloses the following features of claim 1; "interviewing said client to determine associated assets, liabilities, and obligations and to determine said client's financial objectives;" "recording information obtained as a result of said interviews on a client interview form;" "mathematically determining if it is more advantageous for the client to use incoming funds to reduce obligations and liabilities or to invest in additional assets;" and "counseling said client based on the results of said determining means."</p> <p>For claim 2, using "portable computer" is well known, and accordingly, it does not support the patentability of the claim. Use of "voice recognition" technology is also well known and disclosed in the documents such as the article of Wall Street Journal.</p>
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	<p>client based on the results of said determining means by displaying a counseling form on the display screen (col. 21 lines 8-12). While Atkins fails to explicitly teach recording the obtained information on a "client interview form", the entry of the client data into the system of Atkins as noted above with the menus of fig. 6 is seen to effectively provide an electronic client interview form.</p> <p>Atkins fails to specifically teach that the client input is via a voice recognition unit. However, Norris specifically teaches a client entering financial information into a computer by voice recognition in the analogous art of loan approval. It would have been obvious to those of ordinary skill in the art to modify the teachings of Atkins to include the voice recognition of Norris for the advantage of ease of use in inputting data since the client would not be required to type the data. See the abstract of Norris. Atkins also fails to specifically teach that the computer is a portable computer. However, Atkins suggests a variety of computer types that the method can be implemented on (col. 8 lines 55-58) and portable computers are well known in the art. Thus it would have been obvious to those of ordinary skill in the art to modify the teachings of Atkins to use a portable computer for the advantage of increasing the flexibility regarding where the computer can be used to perform the method. Atkins also fails to specifically teach printing information obtained in the interview. However, providing hard copies of entered data at least to provide the client a hard copy for his records or for verification by signature is well known in the art. Thus, it would have been obvious to those of ordinary skill in the art to modify the teachings of Atkins to include printing information obtained in the interview for the advantage of at least providing a hard copy to the client.</p> <p>Documents defining the general state of the art which are not considered to be of particular relevance:</p>	
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	<p>US 5,765,144, Larche et al. 09.06.1998, see the abstract. Brennan, William G., "Hike Returns By Cutting Debt", Financial World, v164 n19, pp.78, 12.09.1995, see the first paragraph. Early, Bill et al., "Marketing to Today's Borrower", Mortgage Banking , v57 n7, pp. 18-23, 04.1997, see paragraph 6. "Clients Must Eliminate Debt First to Maximize Assets, Says Expert", Financial Services Week, pp. 19, 18.03.1991, see paragraphs 33-34.</p>	
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[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X --- Y	US 5,884,285	Abstract, lines 5-6 of the abstract, col. 12 lines 6-26, fig. 6, col. 9 lines 2-4, 38-65, col. 4 lines 17-38, col. 16 lines 11-16, col. 19 line 50 to col. 20 line 10, col. 21 lines 8-12, col. 8 lines 55-58		1 --- 2	From US class/sub search: 705/35
Y	US 5,870,721	Abstract		2	From US class/sub search: 705/35
A	US 5,765,144	Abstract		1-2	From US class/sub search: 705/38
A	Financial World	See the first paragraph.		1-2	Dialog S15
A	Financial Services Week	See paragraphs 33-34.		1-2	Dialog S15
A	Mortgage Banking	See paragraph 6.		1-2	Dialog S15

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

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Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
L1	STN (USPATFULL)	(rid or rids Or ridding Or pay? Or reduc? Or less? Or eliminat? Or low? Or minim?)(7a)(debt# Or liabilit? Or obligation#)
L2	""	(invest? Or increas? Or purchas? Or buy? Or rais? Or maxim?)(7a)(portfolio# or securit### or stock# or bond# or fund# or instrument# or asset#)
L3	""	L1(p)L2
L1	WEST (JPAB,EPAB, DWPI)	(rid Or rids Or ridding Or pay\$ Or reduc\$ Or less\$ Or eliminat\$ Or lower\$ Or minim\$)near7(debt\$ Or liabilit\$ Or obligation\$)
L2	""	(invest\$ Or increas\$ Or purchas\$ Or buy\$ Or rais\$ Or maxim\$)near7(portfolio\$ or securit\$ or stock\$ or bond\$ or fund\$ or instrument\$ or asset\$)
L3	""	L1 same L2
S1	Dialog (Files 15,9,623,810,275,624,813,6 36,621,16,160,148,20,77,35, 583,2,65,233,99,473,475,62 5,268,267)	(RID OR RIDS OR RIDDING OR ELIMINAT? OR PAY? OR REDUC? OR LESS? OR LOW? OR MINIM?)(7N)(DEBT? OR LIABILIT? OR OBLIGATION?)
S2	""	(INVEST? OR INCREAS? OR BUY? OR PURCHAS? OR RAIS? OR MAXIM?)(7N)(PORTFOLIO? OR SECURIT? OR STOCK OR STOCKS OR BOND OR BONDS OR FUND OR FUNDS OR INSTRUMENT? OR ASSET?)
S3	""	S1(S)S2
S4	""	(CLIENT? OR CUSTOMER? OR CONSUMER? OR INVESTOR? OR PATRON OR PERSON OR PEOPLE OR INDIVIDUAL OR INDIVIDUALS)(11N)(GOAL? OR CRITERIA OR OBJECTIVE? OR PLAN? OR FUTURE)
S5	""	S3(S)S4
S6	""	(CLIENT? OR CUSTOMER? OR CONSUMER? OR INVESTOR? OR PATRON? OR PERSON OR PEOPLE OR INDIVIDUAL OR INDIVIDUALS)(5N) (INTERVIEW? OR SURVEY? OR PROMPT? OR QUESTION?)
S7	""	S5(S)S6
S8	""	(PAY OR PAYS OR PAYING OR PAID)(W)OFF(5A)(DEBT OR DEBTS OR MORTGAGE?)
S9	""	(PAY OR PAYS OR PAYING OR PAID)(W)OFF
S10	""	(DEBT OR DEBTS OR MORTGAGE OR MORTGAGES OR LOAN OR LOANS OR

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		CREDIT(W)CARD?)
S11	“”	S9(5N)S10
S12	“”	(BUY? OR PURCHAS? OR INVEST? OR MONEY)(5N)(STOCK OR STOCKS OR FUND OR FUNDS OR BOND OR BONDS)
S13	“”	S11(11N)S10
S14	“”	(BEST OR BETTER OR PREFER? OR OPTIM? OR EFFICIEN?)
S15	“”	S13(11N)S14
S16	“”	S13(11N)(COMPUTER? OR LAPTOP OR LAP(W)TOP OR AUTOMAT? OR SOFTWARE)(5N)(CALCULAT? OR DETERMIN? OR GENERAT? OR ALGORITHM?)
S17	“”	S13(11N)(COMPUTER? OR LAPTOP OR LAP(W)TOP OR AUTOMAT? OR SOFTWARE)

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
Y1	JP, 11-96218, A	Claim 1	None	1, 2	1
Y1	"JIMU KANRI (Office management)," Vol. 29, No. 13, pages 32-39, 1990	Abstract		1, 2	2
Y1	US 5644727	Claim 1, 22, 30	WO, 96-18162, A & JP, 11-501423, A	1, 2	3
Y2	Wall Street Journal, pp:C, 23:1, Oct 13	Customers can consult by telephone using a speech-recognition system.		1, 2	4

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	F-term	"SHISAN UNYOU" (Japanese translation of "asset management")/AL*("SAIMU" (Japanese translation of "debt")+ "HUSAI" (Japanese translation of "debt"))/AL
2	JICST	"SHISAN UNYOU" (asset management)*"SOUDAN" (Japanese translation of "counsel")
3	WPI	ASSET?*MANAGEMENT?*ACCOUNT?
4	Accounting and Tax Database	(VOICE (N) RECOGNITION)*ASSET

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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**(Business Claim Set 3)**

Questionnaire	USPTO	JPO
<b>IPC:</b>	G06GF17/60	G06F17/60
<b>Filing Date (D.M.Y.):</b>	01.01.2000	01.01.2000
<p><b>1. Scope of the claim</b></p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p> <p>Comment: The claim was literally interpreted only because the claim was so broad that a 102/X reference was easily found.</p> <p>Technically, the claim merely recites a searchable, relational database. The lender-related data is non-functional and therefore deserves no patentable weight. Furthermore, the fact that the first group of data comes “from a lender” need not be given patentable weight either since the claimed means is the same regardless of who supplies the first group of data. Incidentally, claim 1 would be rejected under 35 U.S.C. 112, second paragraph for being written in an improper computer program product format. The program code itself does not comprise means; instead, the code instructs a computer to perform various functions. Furthermore, the last line of claim 1 is unclear (“storing in a second data structure comprising ranked data items”). For examination purposes, it will be assumed that the ranked data items will be stored in a second data structure.</p> <p>Again, though, because a 102/X reference was found (anticipating the literal interpretation of the claim), the Examiner chose to consider each and every limitation of the claim (including the Examiner’s interpretation of the last line of claim 1, stated above). The 102/X reference teaches a data structure which stores data regarding various mortgagors and their respective locations. The 102/X reference also teaches a ranking of data items meeting desired criteria.</p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p>

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<p><b>2 . Sources of search</b></p>	<p>Please write summary here. Please write details in “2. Documents considered to be relevant” and “3. Search strategies.”</p> <p>U.S. Classification Search: 705/38 (U.S. Patents only) – which translates into G06F 17/60 for foreign classification</p> <p>Internet West (all databases, which includes U.S. Patents, European Patent Abstracts, Japanese Patent Abstracts, Derwent, and IBM Technical Disclosure Bulletins)</p> <p>Dialog: I searched all “business-related” databases and produced two Inpadoc reports.</p>	<p>F-term (Japanese patent documents, CSDB, Japanese abridged US patents) Commercial database JOIS (JICST Scientific technology file: file 010, Nikkei Sangyo newspaper: file060, Nikkan Kougyo newspaper: file070) Search engine AltaVista (The Internet: <a href="http://www.arcstation.net/altavista/">http://www.arcstation.net/altavista/</a>) United States Patent and Trademark Office: Patent Information and Searchable Databases (The Internet: <a href="http://www.uspto.gov/patft/index.html">http://www.uspto.gov/patft/index.html</a>) <a href="mailto:esp@cenet">esp@cenet</a> (The Internet: <a href="http://gb.espacenet.com/">http://gb.espacenet.com/</a>) DIALOG (INSPEC)</p>
<p><b>3. Search strategies</b></p>	<p>Please write summary here. Please write details in “2. Documents considered to be relevant” and “3. Search strategies.”</p> <p>East: 705/38 (U.S. Patents only) – mixed with text searching for patents that looked potentially relevant</p> <p>Internet: I looked for the concept of choosing a lender by his/her location.</p> <p>West (all databases, which includes U.S. Patents, European Patent Abstracts, Japanese Patent Abstracts, Derwent, and IBM Technical Disclosure Bulletins): I looked for the concept of choosing a lender by his/her location.</p> <p>Dialog (Files 345, 15, 9, 623, 810, 275, 624, 813, 636, 621, 16, 160, 148, 20, 233, 256, and 279): I looked for the concept of choosing a lender by his/her location and I also printed out Inpadoc reports for the two cited U.S. Patents.</p> <ul style="list-style-type: none"> <li>● The claim is so broad that it was felt that an extensive search was not needed at this point, especially after realizing that the broadest, reasonable interpretation of the claim would yield literally dozens of X references with a more extensive search.</li> </ul>	<p>(Order of the search)</p> <ol style="list-style-type: none"> <li>1: F-term (Japanese patent documents: G06F17/60, G06F17/30, etc.)</li> <li>2: F-term (CSDB)</li> <li>3: Commercial database JOIS (JICST Scientific technology database: file 010)</li> <li>4: Commercial database JOIS (Nikkei Sangyo newspaper: file060, Nikkan Kougyo newspaper file070)</li> <li>5: Search engine AltaVista (The Internet: <a href="http://www.arcstation.net/altavista/">http://www.arcstation.net/altavista/</a>)</li> <li>6: United States Patent and Trademark Office: Patent Information and Searchable Databases (The Internet: <a href="http://www.uspto.gov/patft/index.html">http://www.uspto.gov/patft/index.html</a>)</li> <li>7: F-term (Japanese abridged US Patents)</li> <li>8: <a href="mailto:esp@cenet">esp@cenet</a> (The Internet: <a href="http://gb.espacenet.com/">http://gb.espacenet.com/</a>)</li> <li>9: DIALOG (INSPEC)</li> </ol>

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<p><b>4. Citation of the closest prior art</b></p>	<p>Claim 1 lacks novelty over Tengal et al. (U.S. Patent No. 5,940,812)</p> <p>Tengal et al. discloses a computer program product including a computer readable medium for storing computer program code, said program code comprising:</p> <p>(1) means for causing the retrieval of:</p> <p>(a) a first group of data from a Lender regarding a plurality of mortgagors (Figs. 2A, #202; Fig. 3A);</p> <p>(b) a second group of data identifying the geographic locations of each mortgagor (col. 5, lines 25-28: inherently, the mortgagor's/lender's location must be identified), and</p> <p>(c) a third group of data having a set of criteria (Fig. 2A, #204, 208, 210);</p> <p>(2) means for arranging said first and second group of data in a data structure such that geographic location data from said second group of data is associated with a corresponding mortgagor from said first group of data to create a plurality of data items, said data structure allowing for a more rapid evaluation of said criteria for each of said data items (Fig. 2A, #210: inherent to matching capabilities);</p> <p>(3) means for evaluating each of said data items on the basis of said set of criteria by using said data structure (Fig. 2A, #210, 212, 214; Fig. 2B);</p> <p>(4) means for re-arranging data items, which meet said set of criteria, in a ranked order and storing the ranked data items in a second data structure comprising ranked data items (Fig. 2A, #212, 214).</p> <p>Other Relevant References:</p> <p>US patent no. 5,966,699 and the article "Be Prepared for Bank Challenges" are cited as background material only. Both references disclose a relationship between lending and geographic location its location.</p>	<p>"http://gw.tfs.co.jp/panph_kd.html" describes judgment of real estate security using certain judging criteria for real estate security data concerning mortgagors and data identifying the geographic locations of them by computer program.</p> <p>The person skilled in the art would have easily applied the rearrangement of data items in ranking order ("JP, 6-124294, A") to the result of this judgement.</p> <p>To manage the real estate security data concerning mortgagors and data identifying the geographic locations of them (map information) as two independent data sets and setting correspondence between them is a generally known technique, as described in JP, 9-16664, A.</p>
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APPENDIX 5

[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	US 5,940,812 A	Figs. 2A, 2B, 3A; Col. 5, lines 20-28 (the entire invention is disclosed)	Only U.S. patent exists	1	A
A	US 5,966,699 A	Col. 1, lines 44-52 (a relationship between lending and geographic location its location)	Only U.S. patent exists	1	A
A	“Be Prepared for Bank Challenges”	Page 2, lines 47-50 (a relationship between lending and geographic location its location)	N/A	1	S3

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
A	East	705/38 (IS&R) – Searched for “location” and/or “geographic” in patents that looked potentially relevant
L1	West (U.S. Patents, European Patent Abstracts, Japanese Patent Abstracts, Derwent, and IBM Technical Disclosure Bulletins)	(lender\$ OR lending OR mortgagor\$)
L2	West (same databases listed above)	L1 SAME (geographic OR location\$)
L3	West (same databases listed above)	L1 SAME geographic
L4	West (same databases listed above)	L2 NOT L3
B	Internet – <a href="http://www.google.com">www.google.com</a>	I searched the concept of choosing lenders by their respective locations.
C	Internet – <a href="http://www.ask.com">www.ask.com</a>	I searched the concept of choosing lenders by their respective locations.
S1 (both searches)	Dialog – Inpadoc Reports (File 345)	I searched the patent family information for the two cited U.S. Patents.
S3	Dialog – Files 15, 9, 623, 810, 275, 624, 813, 636, 621, 16, 160, 148, 20, 233, 256, and 278)	(rank? (5n) lender? (5n) location?) AND py<=1998

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
Y	http://gw.tfs.co.jp/panp_h_kd.html	Entire document		1 ((1), (2), (3))	10
Y	JP, 6-124294, A	claim-1, [0028], figure 16, figure 23	No	1 ((4))	4
A	JP, 9-16664, A	claim-1, figure 1-4	No	1 ((1)(a), (b), (2))	1

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	F-term	[G06F15/21@J]*["TEITOU" (Japanese translation of "mortgage")/AL+"TANPO" (Japanese translation of "security")/AL+"FUDOUSAN" (Japanese translation of "real estate")/AL+"MOHGAGE" (Japanese pronunciation of "mortgage")/AL+"BUKKEN" (Japanese translation of "an article of matter" (Note: this word is almost always used to refer to an article of real estate in Japanese))/AL]
2	F-term	[G06F15/21@J]*["KANTEI (an expert opinion)/AL+"MITSUMORI (estimate)/AL+"HYOUKA (judgement)/AL+"TENSU (point)/AL+"RANKU (rank)/AL+"JYUNI (ranking)/AL+"KACHI (value)"/AL]
3	F-term	[G06F15/21@T+G06F15/21@Z]*["TEITOU (mortgage)/AL+"TANPO (security)/AL+"FUDOUSAN (real estate)/AL+"MOHGAGE (mortgage)/AL+"BUKKEN (article)"/AL]
4	F-term	[G06F15/20@N+G06F15/21@Z]*["RANKU (rank)/AL+"RANKING (ranking)/AL+"JYUNI (ranking)/AL+"SOHTO (sort)"/AL]
5	F-term	["TANPO (security)/AL+"TEITO (mortgage)"/AL]*["KANRI (management)"/AL]
6	F-term	["HYOUKA (judgement)/AL+"KAKAKU (price)/AL]*["RANKU (rank)/AL+"RANKING (ranking)/AL+"JYUNI (ranking)/AL+"SOHTO (sort)"/AL]
7	JOIS(file010)	("FUDOUSAN TANPO (real estate security)+"TEITOU (mortgage)+"MOHGAGE (mortgage) ")*("HYOUKA (judgement)+"KANTEI (an expert opinion)+"KANRI (management))
8	JOIS(file060)	"FUDOUSAN TANPO (real estate security)*("HYOUKA (judgement)+"KANRI (management))
9	JOIS(file070)	"FUDOUSAN TANPO (real estate security)*("HYOUKA (judgement)+"KANRI (management))
10	AltaVista	"FUDOUSAN TANPO KANRI (real estate security management)"
11	USPTO Web DB	mortgage AND location AND evaluation

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12	USPTO Web DB	mortgage AND rank
13	USPTO Web DB	estate AND security AND evaluation
14	esp@cenet	mortgage
15	DIALOG(INSPEC)	mortgage AND evaluation
16	DIALOG(INSPEC)	mortgage AND location

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

APPENDIX 5

(Database Claim Set)

Questionnaire	USPTO	JPO
<b>IPC:</b>	G06F 17/30	G06F12/00
<b>Filing Date (D.M.Y.):</b>	01.01.2000	31.12.1999
<p><b>1. Scope of the claim</b></p>	<p>“Statement of “intended Use” in the preamble was neglected (point out the neglected part of the claim.) The claim was not literally interpreted for the lack of clarity (explain).</p> <p>Comments: All of the claims 1-5 fail to recite limitations which would “optimize the retrieval of data” in the body of the claim. This would engender a 35 USC 112 (2) rejection in a U.S. application because the claim is not consistent with the preamble. In view of the crucial nature of that aspect of the claims, they were examined with their intended use, anyway, as would have been done in a U.S. examination.</p> <p>Regarding clarity, claims 1 and 2 would not be statutory in the U. S. under 35 USC 101. Claim 1 is directed to imprinted matter on a computer memory, and as such, the data is non-functional. Claim 2 fails to be statutory under 35 USC 101 on the grounds that it is an abstract data structure <i>per se</i>. This claim would have been examined on its merits anyway in the interest of compact prosecution, and that was done here.</p>	<p>(comment) With regard to "A computer readable memory" of claim 1 and "A data structure" of claim 2, these are handled as invention of "product."</p>
<p><b>2. Sources of search</b></p>	<p>Please write summary here. Please write details in “Annex I. Documents considered to be relevant” and “Annex II. Search strategies.” US Classified Search: 707/2,10,102,204 Text Searches: USPAT, Derwent, EPO, JPO The main strategy was to look for retrieval from archived databases on networks which used rank, position to optimize retrieval.</p>	<p>1. Retrieval system of JPO F-term G06F12/00 G06F15/40 Japanese abridged U.S. Patent, CSDB 2. Nonpatent documents JOIS Books about Database technology IPSI SIG Reports (Information Processing Society of</p>

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		<p>Japan, Special Interest Group Report)          Database system          Multimedia communications and distributed processing</p>
<p><b>3. Search strategies</b></p>	<p>Please write summary here. Please write details in “Annex I. Documents considered to be relevant” and “Annex II. Search strategies.”          A search tree was built up in each source database, using terms such as (database adj (data base)), and ((archiv\$2) or (distributed)), and network and retriev\$3. This was then combined with further delimiters such as optimiz\$3, rank, and (position or location). Refinements of the search included additional terms as needed, sometimes from nodes further up the search tree.</p>	<p>Search was conducted in the following order:          1. Search for well known technology by searching books concerning database technology          2. Retrieval system of JPO              2.1. F-term                  G06F12/00 (File systems and Database management systems)                  G06F15/40 (Corresponding IPC (Int. Cl. 7) is G06F17/30: Retrieval system)              2.2. Japanese abridged U.S. Patent, and CSDB                  Full text search using keywords          3. Nonpatent documents              JOIS is searched using keywords at the beginning. Then the indexes of relevant published documents such as ISPJ SIG Reports are searched. After that, references of relevant documents are searched (by paper search).</p>
<p><b>4. Citation of the closest prior art</b></p>	<p>All of the claims were rejected as lacking novelty over Morimoto et al (Morimoto), USPAT 5,379,424. In view of the failure of the claims to specify what is being optimized, Morimoto would have been considered clearly anticipated in a U.S. examination, but the details would be laid out as follows: FIG 5-6 show columns of a data structure (22, FIG 22) used to optimize retrieval based on location (column C of FIG 5), availability (column A of FIG 5), and accessibility as measured by retrieval time (FIG 6). Location, availability and accessibility are clearly in distinct fields. Details of the application of this particular data for optimization is to be found in columns 5 and 6 of Morimoto.           The selection of the source of data is based on optimizing the retrieval time from a source from which it is available</p>	<p>Claims 1 - 5:              Y Sadayuki HIKITA, "COM series: Introduction to Distributed database Illustrated," 1st. Edition, Ohmsya, Ltd., 25.05.89.              Y JP, 10-320337, A (Hitachi), 04.12.98.              Y Hiroyuki INOUE, "Implementation of Load Balancing of WWW Server using NAT, " ISPJ SIG Report, Vol. 96, No. 95 (96-DPS-78), 27.09.96, ISPJ (Tokyo), p. 19-24.</p>

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	<p>[See Abstract, Summary, and elsewhere.] Determining and then selecting the optimum value clearly requires a ranking of available sources by retrieval time.</p> <p>Documents defining the general state of the art include Hotle, USPAT 5,218,689; Gordon et al, USPAT 5,148,432; Jeffries et al, USPAT 5,313,585; Dao et al USPAT 5,596,744; Klewein et al USPAT 5,768,577; Kouloheris et al, USPAT 5,915,094; Burrows, USPAT 5,966,710.</p>	
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[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	US 5,379,424	ABSTRACT, SUMMARY, FIG 2,5,6		1-5	6
A	5,148,432	ABSTRACT, FIG, SUMMARY		1-5	5
A	5,218,689	ABSTRACT, FIG, SUMMARY		1-5	6
A	5,313,585	ABSTRACT, FIG, SUMMARY		1-5	2
A	5,596,744	ABSTRACT, FIG, SUMMARY		1-5	5
A	5,768,577	ABSTRACT, FIG, SUMMARY		1-5	6
A	5,915,094	ABSTRACT, FIG, SUMMARY		1-5	6
A	5,966,710	ABSTRACT, FIG, SUMMARY		1-5	5

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	EPO,JPO,DERWENT	DATABASE OR (DATA BASE) AND (ARCHIV\$2 OR DISTRIBUTED) AND NETWORK AND RETRIEV\$3 AND OPTIMIZ\$3 AND RANK AND (POSITION OR LOCATION)
2	EAST(uspat)	ARCHIV\$2 AND STORAGE AND RANK AND RETRIEVE AND OPTIMIZ\$3 AND FIELD AND (DATA STRUCTURE)
3	707/\$.CCLS.	COMBINED WITH SOME OF THE ABOVE
4	EAST	VARIOUS COMBINATIONS OF REMOTE, DISTRIBUTED, RANK\$4, NEAREST WITH THE ABOVE NODES.
5	EAST	VARIOUS COMBINATIONS INVOLVING (ARCHIVAL STORAGE)
6	EAST	VARIOUS COMBINATIONS INVOLVING LOCATION OR DISTANCE

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Annex I- Documents considered to be relevant

<b>Category (*1)</b>	<b>Cited documents</b>	<b>Relevant passage/What is taught (*2)</b>	<b>Patent families (*3)</b>	<b>Relevant claim N</b>	<b>Query Number</b>
Y	Sadayuki HIKITA, "COM series: Introduction to Distributed database Illustrated," 1st. Edition, Ohmsya, Ltd., 25.05.89.	p. 36 - 79 (In particular, p. 50 - 62)		1 - 5	1
Y	JP, 10-320337, A (Hitachi), 04.12.98	l. 13, left column, p. 10 - 1.12, right column, p.12, and Fig. 4	None	1 - 5	2
Y	Hiroyuki INOUE, "Implementation of Load Balancing of WWW Server using NAT, " ISPJ SIG Report, Vol. 96, No. 95 (96-DPS-78), 27.09.96, ISPJ (Tokyo), p. 19-24.	l. 15, right column, p.22 - 1.6, left column, p.23		1 - 5	6
A	Daigoro TAKEUCHI, et al., "WWW Server Adaptive Selection Method based on Roundtrip Time, " ISPJ SIG Report, Vol. 98, No. 8 (98-DPS-86), 29.01.98, ISPJ (Tokyo), p. 243-248.	l. 1, left column, p.244 - 1. 25, left column, p. 245		1 - 5	6

(\*1) In case of "Y" documents, the combination should also be indicated.

(\*2) It should be indicated in case of "X" or "Y" documents and avoids indication "Entire document."

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

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Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	Paper search	Search for books about distributed database technology
2	F-Term	F-term Theme code: 5B082 [G06F12/00,545@A or G06F12/00,545@B or G06F12/00,546], Since the number of documents is too much, freeword and full text search was conducted combining following words; "mirror" OR "repli" OR "HUKUSEI (Japanese translation of "replica" OR "copy"; "directory" OR "ICHI (Japanese translation of "location") OR "HUKA (load)" OR "KAYOU (availability)"; or, "KOU-IKI (wide area)" OR "WWW" OR "Internet."
3	F-Term	F-term Theme code: 5B075 [G06F15/40,310@C or G06F15/40,310@F]. Since the number of documents is too much, freeword and full text search was conducted combining following words; "mirror" OR "repli" OR "HUKUSEI (Japanese translation of "replica") OR "copy"; "directory" OR "ICHI (Japanese translation of "location") OR "HUKA (load)" OR "KAYOU (availability)"; or, "KOU-IKI (wide area)" OR "WWW" OR "Internet."
4	Search terminal (CSDB and Japanese abridged U.S. patent)	Full text search was conducted combining following words; ("KOU-IKI (wide area)" OR "WWW" OR "Internet" OR "distributed database" OR "distributed file" OR "directory" OR "LDAP"), AND ("mirror" OR "replica" OR "replication" OR "HUKUSEI (replica)" OR "copy" OR ("ICHI (location)" OR "HUKA (load)" OR "KAYOU (availability)"))
5	JOIS	("WWW" OR "distributed database" OR "distributed file") AND ("mirror" OR "replica" OR "replication" OR "copy" OR "HUKUSEI (replica)" or "HUKA")
6	Paper search(ISPJ SIG report (DBS, DPS))	Relevant documents concerning "mirror", "HUKUSEI (replica)", "HUKA-BUNSAN (load balancing)" are searched using the indexes of the report.
7	Paper search	Documents were searched one after another by following documents referred by the documents already found by the above "5." and "6."

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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(Graphics Claim Set)

Questionnaire	USPTO	JPO
IPC:	G06T 15/30	G06T17/40
Filing Date (D.M.Y.):	01.01.2000	01.01.2000
1. Scope of the claim	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p> <p>Comments: The claim was interpreted as broadly clipping a virtual reality world to a boundary selected by a user, and rendering the clipped data with a viewpoint change. A device having this characteristic should allow for a repositioning in space of the clipped data, considering that disclosed display surface is clearly two dimensional, i.e., a three dimensional display, if such a display existed, would inherently displayed an object from multiple perspectives. The disclosed device, a "browser" for a subset of Virtual Reality Objects, was deemed substantially more narrow in scope than the claim, which appeared broad enough to claim creating a view volume.</p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p>
2. Sources of search	<p>Please write summary here. Please write details in "Annex I. Documents considered to be relevant" and "Annex II. Search strategies."</p> <p>Classified Search: 345/433, 434, 355 (US Classified search via EAST)</p> <p>Text Search: DIALOG, ACM, IEEE</p> <p>The strategy in the search in general was to find clipped regions of a virtual reality model that could be independently manipulated.</p>	<p>F-Term WPI F-22 Air Dominance Fighter Users Manual AUBIRDFORCE Users Manual "Nikkei CG, Nikkei BP Mook Brand-new CG Software purchase guide '97-'98," Nikkei BP, 25.10.97 "Nikkei CG, Nikkei BP Mook Brand-new CG Software purchase guide '98-'99," Nikkei BP, 30.10.98 "Nikkei CG, Nikkei BP Mook Brand-new CG Software purchase guide 2000," Nikkei BP, 10.10.99</p>
3. Search strategies	<p>Please write summary here. Please write details in "Annex I. Documents considered to be relevant" and "Annex II. Search strategies."</p> <p>Classified search was performed first in 345/434, as it was recognized that this subject matter was well classified in</p>	<p>The order of the search was; 1. Magazines and Product manuals, 2. F-term, and 3. WPI, according to the following reasons.</p> <p>As it is mentioned in the description of the present invention, it is likely that this invention is used in the area</p>

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	<p>the US classification system, i.e., this subject matter does not overlap into many areas. A non-patent literature search in ACM and IEEE was performed secondarily because it was recognized that these sources are superior for this type of graphical applications.</p>	<p>of games, CAD; especially in the 3D simulation game that require recognition of both wide and narrow areas.</p> <p>Because this invention concerns the user interface for maneuvering the 3D objects, the field for application is very wide. And it seems difficult to search documents by IPCs or FIs (File indexes).</p> <p>It is not likely that this idea is registered in science document databases such as INSPEC or JICST. No proper search keywords seem to exist for this purpose.</p> <p>On top of that, this kind of invention could hardly be the main part of the inventions registered in patent databases, but only the part of an invention. Accordingly, when searching prior art, it is necessary to search the details of entire descriptions.</p> <p>For this case, it is expected that precise search is difficult on the Internet. However, since there is the chance to locate a product that has similar function, the Internet search is conducted when no "X" or "Y" documents are found by other search methods.</p>
<p><b>4. Citation of the closest prior art</b></p>	<p>Claim 1 lacks novelty under US 5,432,894 A, as disclosing a software product comprising: the steps of inputting boundary data, e.g., CB1-4, Figure 3; projecting the input boundary data into a VR world, thus segregating the world (Figure 3); rendering all objects within said boundary (see column 1, lines 50-56 &amp; 64-68; and column 2, lines 1-14); and providing a visual display of the rendered objects from multiple perspectives (see column 5, lines 38-45).</p> <p>Documents illustrating the general state-of-the-art</p> <p>US 5,471,569 A – (see abstract; commonly assigned to US '894 patent)</p> <p>US 5,877,773 A – (shows “view clipping” in conjunction with “model clipping”: see abstract, drawings)</p> <p>VIEGA et al., “3D Magic Lenses”, 11/1996.</p> <p>DEERING, Michael., “High Resolution Virtual Reality”,</p>	<p>Document 1 F-22 Air Dominance Fighter User Manual, Document 2 JP, 3-251971, A, Document 3 JP, 4-238580, A, Document 4 AUBIRDFORCE Users Manual</p> <p>Document 1 (F-22 ADF manual) discloses the "AWACS Map Window," which displays the symbols such as aircraft in 3D area, and the "AWACS 3D Window," which displays the 3D rendered object selected in the "AWACS Map Window."</p> <p>"Symbol," the "AWACS Map Window," and the "AWACS 3D Window" in document 1 correspond to the "outline of a three-dimensional object," "virtual reality world," and "visual display of the rendered object" in claim 1 of the invention.</p> <p>Although the document 1 only describes selecting the "symbol" in the "AWACS Map Window" and rendering that symbol, it is a commonly exercised method of selecting and extracting the 3D object to select the object from the</p>

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	<p>07/1992</p>	<p>arbitrary solid region (e.g. Figure 4 of the document 2 and Figure 3 of the document 3). Also, it is common as the user interface of the computer graphic system to provide view of the selected object from arbitrary angle by magnifying, reducing or rotating the selected object (e.g. [0013] of the document 3).</p> <p>Besides, in the "AWACS 3D Window" of the corresponding program on the CD-ROM of the document 1, the viewpoint is changed every few seconds, and therefore the object is displayed from several angles.</p> <p>So a person skilled in the art would have easily think of extracting the "symbol" from the region of arbitrary shape in the "AWACS Map Window" and viewing it from several viewpoints based on the document 1. And the claimed invention lacks inventive step comparing from the invention described in the document 1.</p> <p>Besides, although it is not clearly documented in the document 4, the corresponding program stored on the CD-ROM of the document 4 is the prior art where a unit shown as an icon ("outline of a three-dimensional object") is rendered and viewed from arbitrary angle, by selecting the block ("boundary") in the radar display ("virtual reality world") of the map screen. Therefore it seems that the inventive step of the present invention would be denied by this prior art</p>
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[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	US 5,432,894 A	Fig. 3, column 1, lines 50-56, & lines 64-68; column 2, lines 1-14		1	4
A	US 5,471,569 A	See abstract		1	4
A	US 5,877,773 A	Figure 7		1	4
A	VIEGA et al., "3D Magic Lenses", Proceedings of the 1996 9th ACM Annual Symposium on User Interface Software and Technology", 11/1996, pp. 51-58.	See abstract, all figures		1	2
A	DEERING, Michael., "High Resolution Virtual Reality, Computer Graphics, v. 28, n. 2, 07/1992, pp. 195-202.	See entire document.		1	2

(\*1) In case of "Y" documents, the combination should also be indicated.

(\*2) It should be indicated in case of "X" or "Y" documents and avoids indication "Entire document."

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	DIALOG 652-4	See attached
2	ACM	See attached
3	IEEE	See attached
4	EAST	Classified search, above

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
Y	F-22 Air Dominance Fighter User Manual (Japanese version), IMAGINIA, 1998	pages 114-122		1	1
A	AUBIRDFORCE Users Manual, BANDAI, 1996	p. 16		1	1
Y	JP, 3-251971, A	line 17, Lower left column, page 2 - line 8, Upper left column, page 3	None	1	4
Y	JP, 4-238580, A	[0011] - [0013] page 3	None	1	4
A	JP, 9-198407, A		None	1	7

(\*1) In case of “Y” documents, the combination should also be indicated.

(\*2) It should be indicated in case of “X” or “Y” documents and avoids indication “Entire document.”

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document.

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	Paper search	
2	F-Term	G06F15/62,350@L
3	F-Term	G06F15/62,350@K*5B050EA12+G06F15/62,350*5B050(FA09*EA23)+G06F15/62,350*5B050(FA09*EA03)+G06F15/62,350*5B050(FA09*FA12)
4	F-Term	G06F15/62,350 Keyword search: "KAKUDAI" (Japanese translation of "magnify")+ "SEISAI (detail)"+"SYOUSAI (detail)"+"RYOUIKI (region)"+"KYOUKAI (boundary)"
5	F-Term	A63F9/22@(B+C) Keyword search: "SAN JIGEN (3 dimension)"+"RITTAI (solid)"+"3 JIGEN (3 dimension)"+"3D"
6	WPI	(virtual(w)reality or virtual(w)space) and view and angle
7	WPI	(virtual(w)reality or virtual(w)space) and (outline or detail)
8	WPI	three(w)dimension? and view and angle and multi?
9	WPI	three(w)dimension? and (outline or detail)

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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(Internet Claim Set)

Questionnaire	USPTO	JPO
<b>IPC:</b>	G06F 15/16	G06F12/00
<b>Filing Date (D.M.Y.):</b>	01.01.1998	01.01.1998
<b>1. Scope of the claim</b>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p> <p>Comments: The sole claim is directed towards background transfer and local cache storage of secondary information data to be displayed to a network client using an (Internet) browser upon selection of a hyperlink. During the interim between webpage displays, the secondary information is displayed to the user.</p>	<p>The claim was literally interpreted; i.e. take all claim limitations into account.</p>
<b>2. Sources of search</b>	<p>Please write summary here. Please write details in "Annex I. Documents considered to be relevant" and "Annex II. Search strategies."</p> <p>EAST text search            IEEE abstract database text search            Internet Request for Comments (RFCs) text search            Classified search: US 709/203, 217, 218, 219, 227            Search consisted of 3 parts: (1) Background transfer and storage of info, (2) Browser and Hypertext, (3) Interim display of information.</p>	<p>1. Retrieval system of JPO            F-term            G06F12/00            Japanese abridged U.S. Patent, CSDB</p> <p>2. Nonpatent documents            JOIS            IPSJ SIG Reports (Information Processing Society of Japan, Special Interest Group Report)            Multimedia communications and distributed processing</p>
<b>3. Search strategies</b>	<p>Please write summary here. Please write details in "Annex I. Documents considered to be relevant" and "Annex II. Search strategies."</p> <p>Searched for background transfer operations over an idle/unused connection link, client/server system using a browser, and the incorporation of hyperlinks. Display of information during interim between display of webpages.</p> <p>First, a preliminary text search was executed, using the</p>	<p>Search was conducted in the following order:</p> <p>1. F-term            G06F12/00 (File systems and Database management systems)            Since technologies concerning high speed access to WWW pages are assigned G06F12/00, 546 or its sub-classifications, the search started here.            In case that a document of "EX" category is found, other documents cited by this document should also be searched and considered.</p>

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	<p>USPAT file of EAST.</p> <p>Next, a classified search of US Patents in the relevant 709 subclasses was done starting with client/server functionality, then, remote data accessing and data transfer over networks. Last, session establishment was searched for relevant request/response functionality.</p> <p>Lastly, Internet related non-patent literature (IEEE and RFCs) were examined for relevancy to the claimed background information transfer and interim display functionality.</p>	<p>2. Nonpatent documents          First, JOIS is searched using keywords. Then the indexes of relevant published documents such as ISPJ SIG Reports are searched. After that, references of the relevant documents are searched (by paper search).</p> <p>3. The Internet          Search engine for WWW is used since presentation at the conferences such as "The Internet Conference" is sometimes on the homepages of WWW.</p>
<p><b>4. Citation of the closest prior art</b></p>	<p>Claim 1 is clearly anticipated by JUDSON, (U.S. Patent Number 5,737,619).</p> <p>Judson clearly disclosed client/server systems (Figures 1 and 10, and Column 3, Lines 60-67), active session establishment over an Internet in response to client agent requests for linked hypertext document(s) (Figure 3, Column 2, Lines 17-58, Column 5, Lines 57-65, and Column 7, Lines 11-33), transfer of the requested document(s) (Column 9, Lines 28-30), downloading of information objects over an otherwise idle connection (Column 9, Line 12 through Column 10, Line 27), storing the information object(s) for later display (Column 9, Lines 43-48), and displaying the object(s) after a hyperlink is selected in the interim time for document transfer (Figures 3, 11, and Column 6, Lines 10-28). Lastly, claim 1 (Column 10, Lines 31-56) fully disclosed the entire invention as claimed.</p> <p>Claim 1 is clearly anticipated by SLOTZNICK (U.S. Patent Number 6,011,537).</p> <p>Slotznick disclosed hypertext and hyperlinking (Figures 4, 6, Column 8, Line 63 through Column 9, Line 28, Column 22, Lines 8-17, and Column 37, Lines 13-21), connection establishment over an Internet comprised of numerous clients and servers (Figures 7, 11, Column 8, Line 63 through Column 9, Line 28, Column 13, Lines 52-59, and Column 19, Lines 24-43), transfer of primary information in</p>	<p>Claim 1:          X Kenichi CHINEN et al., "A Prefetching Strategy on Prefetching Proxy Server for WWW," IPSJ SIG Report, Vol. 96, No. 63 (96-DPS-77), 12.07.96, IPSJ (Tokyo), p. 55-60.          EX JP, 11-24982, A (NEC), 29.01.99, (Application. No.: H9-198196, Application. Date: 30.06.97)          EX JP, 11-149405, A (Hitachi), 02.06.99, (Application. No.: H9-331087, Application. Date: 14.11.97)</p>

	<p>response to client request (Column 4, Lines 38-59, Column 13, Lines 52-59, and Column 37, Line 13 through Column 38, Line 37), background transfer of secondary information (Column 6, Lines 24-41, Column 10, Lines 26-36, Column 11, Line 53-56, Column 12, Lines 11-13, Column 14, Lines 61-67, Column 21, Lines 40-51), storage and delayed display of secondary information in cache memory (Figure 8, Column 4, Lines 38-59, Column 9, Lines 22-27, Column 11, Lines 12-13, Column 14, Lines 61-67, Column 20, Lines 58-64, Column 23, Line 33 through Column 24, Line 49, and Column 37, Line 13 through Column 38, Line 37), and display of the secondary information during transfer interims (Figures 9, 16, Column 4, Lines 38-59, Column 11, Lines 60-63, Column 23, Line 33 through Column 24, Line 49, and Column 37, Line 13 through Column 38, Line 37).</p> <p>Claim 1 is anticipated by KLUG et al. (U.S. Patent Number 5,996,007). Klug disclosed transfer of messages over an idle Internet connection between client and server after retrieval of requested information provided in response to user request (Column 2, Lines 21-62, Column 5, Lines 5-31), storage of the messages in a temporary cache ( Column 5, Line 45 through Column 6, Line 4), background operation of the browser (Column 2, Lines 21-46), and message display during interim times of future document transfers (Column 2, Lines 21-46, Column 3, Lines 56-59, Column 5, Lines 45-65).</p> <p>Claim 1 lacks an inventive step over HILL (U.S. Patent Number 5,805,815), in view of ALLEN et al. (U.S. Patent Number 5,918,239). Hill disclosed background transfer of informational objects (Column 1, Lines 52-54), embedding of information for display to a client during hyperlink initiated transfer interims (Figures 3, 4, 6, Column 2, Lines 10-59, and</p>	
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	<p>Column 4, Lines 5-56), and client/server functionality over an Internet (Figure 1, and Column 2, Lines 55-59). Hill does not specifically implement the utilization of an idle connection to gather and locally store information for display during page loading interims. In the related art of Internet webpage display, Allen disclosed the prefetching of information objects for future/current display and background information transfer functionality in Figure 3A and 3B, Column 2, Lines 1-23 and Column 3, Line 54 through Column 4, Line 7, by the "deferred-load queue". An artisan would have been motivated to combine the teachings of deferred display of webpages provided by Allen into the webpage display system of Hill in order to reduce the amount of time a user is forbidden to interact with a webpage while another webpage is loading. See Allen, Column 1, Lines 64-67, and Hill, Column 1, Lines 65-67. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hill and Allen to reduce the amount of time a client user waits for interaction with webpage information during loading of a requested webpage.</p>	
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[USPTO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
EX	US 5,737,619 A	Figures 1, 3, 10, 11, Column 2, Lines 17-58, Column 3, Lines 60-67, Column 5, Line 33 through Column 6, Line 28, Column 7, Lines 11-33, and especially Column 9, Line 12 through Column 10, Line 56, including claim 1.		1	10, 11, 12, 14, 19
EX	US 5,996,007 A	Figures 2, 4, Column 2, Line 21 through Column 3, Line 16, Column 3, Lines 56-59, and Column 5, Line 5 through Column 6, Line 4.		1	14
EX	US 6,011,537 A	Figures 4, 6, 7-9, 10A-10B, 11, 16, Column 4, Lines 38-59, Column 6, Lines 24-41, Column 8, Line 63 through Column 9, Line 28, Column 10, Lines 26-36, Column 11, Line 12 through Column 12, Line 18, Column 14, Lines 61-67, Column 19, Lines 24-43, Column 20, Lines 58-64, Column 21, Lines 40-51, Column 22, Lines 8-17, Column 23, Line 33 through Column 24, Line 49, Column 31, Lines 15-18, Column 37, Line 13 through Column 38, Line 37, and Column 40, Lines 50-65.		1	14
EY	US 5,805,815 A	Figures, 1, 3, 4, 6, Column 2, Lines 10-58, Column 4, Lines 5-56		1	Classified Search 709/218
EY	US 5,918,239 A	Column 2, Line 1 through Column 4, Line 50		1	17

(\*1) In case of “Y” documents, the combination should also be indicated.

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Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	EAST	CLIENT SAME SERVER
2	EAST	IDLE SAME CONNECTION
3	EAST	(HYPERLINK\$3 OR URL\$1 OR LINK\$3) SAME (DOWNLOAD\$3 OR RETRIEV\$3 OR TRANSFER\$4)
4	EAST	BROWSER AND INTERNET
5	EAST	CACH\$3 SAME BACKGROUND
6	EAST	((DEFER\$4 OR DELAY\$3) NEAR8 DISPLAY\$3) SAME (HYPERLINK\$3 OR URL\$1 OR LINK\$3)
7	EAST	((DEFER\$4 OR DELAY\$3) NEAR8 DISPLAY\$3) AND (HYPERLINK\$3 OR URL\$1 OR LINK\$3)
8	EAST	((HYPERLINK\$3 OR URL\$1 OR LINK\$3) NEAR6 SELECT\$3)
9	EAST	2 AND 3
10	EAST	4 AND 9
11	EAST	5 AND 9
12	EAST	2 AND 5
13	EAST	3 AND 5
14	EAST	4 AND 13
15	EAST	7 AND 8
16	EAST	4 AND 15
17	EAST	6 AND 8
18	EAST	1 AND 9
19	EAST	4 AND 18
---	RFC listings	Keywords: client/server, idle connection, background
---	IEEE abstracts	Keywords: idle connection, background, cache, display, browser

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet

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[JPO]

Annex I- Documents considered to be relevant

Category (*1)	Cited documents	Relevant passage/What is taught (*2)	Patent families (*3)	Relevant claim N	Query Number
X	Kenichi CHINEN et al., "A Prefetching Strategy on Prefetching Proxy Server for WWW," IPSJ SIG Report, Vol. 96, No. 63 (96-DPS-77), 12.07.96, IPSJ (Tokyo), p. 55-60.	Line 5, left column, p. 57 to line 15, right column, p. 58, in particular.		1	2, 3
EX	JP, 11-24982, A (NEC), 29.01.99, (Application No.: H9-198196, Application Date: 30.06.97))	Line 8 to 35, right column, page 3, in particular.	None	1	1
EX	JP, 11-149405, A (Hitachi), 02.06.99, (Application No.: H9-331087, Application Date: 14.11.97))	Line 32 to 46, right column, page 2	None	1	1

(\*1) In case of "Y" documents, the combination should also be indicated.

(\*2) It should be indicated in case of "X" or "Y" documents and avoids indication "Entire document."

(\*3) English language document is best, French or German language document is acceptable only if it were no English language document

Annex II- Search strategies

Query Number	Tool (DB) (*4)	Search Query
1	F-Term	G06F12/00,546@L
2	F-Term	Search for documents cited by the "EX" document already found by the above "1." search.
3	JOIS	("SAKIYOMI" (Japanese translation of "prefetch") OR "prefetch") AND ("WWW" OR "hypertext" OR "HTML" OR "HAI-PAH-TE-KI-SU-TO" (Japanese pronunciation of "hypertext"))
4	Yahoo! (http://www.yahoo.co.jp)	Documents found by search "1," "2," and "3" teach that there was a presentation about WWW prefetching at "The Internet Conference '96." Therefore, the search was conducted using keyword: "internet conference" at Yahoo!
5	Paper search (IPSJ SIG Report (DPS))	Documents concerning high speed access of WWW were searched by searching index of the Reports.
6	Paper Search	Search for documents referred by the documents already found by the above "4." and "5." search

(\*4) Example: F-Term, ECLA, USC, CS, DNA, JOIS, PATOLIS, QUESTEL, DIALOG, STN, The Internet