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# Report on Comparative Study Carried Out Under Trilateral Project B3b Business Method Related Inventions

## **1 . Introduction**

### **1.1 Background**

Patent protection of software-related inventions is one of the important issues to be discussed in the framework of the Trilateral Technical Meeting. The Trilateral Offices carried out the Comparative study in the field of computer software under the Trilateral Project 24.2 and made the report open to the public in 1997. (See Trilateral Web Site.)

The Trilateral Offices are receiving ever-increasing numbers of filings directed to business method related inventions. To facilitate consistent search and examination practices, to the maximum extent possible under varying national practices, it was discussed that efforts to promote mutual understanding with respect to these issues would be beneficial.

In September 1999, The Heads of Offices agreed to study the legal and practice aspects of this emerging field. The Trilateral Offices have shown their interest for a comparative study on business method related inventions. The USPTO and JPO agreed to start the study at the Trilateral Conference in November 1999. Finally, the Trilateral Offices agreed to adopt a final report at the Trilateral Technical Meeting in June 2000.

### **1.2 Outline of the project B3b**

According to the agreement of the Trilateral Conference in November 1999, the JPO worked as leading Office on this project.

The USPTO and the JPO conducted the comparative study using hypothetical claim sets. These claim sets are categorized in two groups. The first group (Group 1) consists of two hypothetical claim sets focusing on business method related inventions proposed by the JPO. The second group (Group2) consists of six hypothetical claim sets proposed

by the USPTO in the field of the Internet, business methods, database and graphics.

These claim sets were studied from the viewpoints of scope of the claim, statutory subject matter, novelty/inventive step (non-obviousness) with respect to the Group 1, and from the viewpoints of scope of the claim, source of search, search strategy and documents considered to be relevant with respect to the Group 2.

## 2. Comparative Study of Group1

### 2.1 Hypothetical Claim Set A

The hypothetical claim set A relates to "A service method of granting points" for allowing points issued to a customer to be given to any person other than the customer, which enables the customer to use his/her points as a gift.

This claim set A consists of claims 1-6. Two sets of prior arts were given for evaluating the novelty and the inventive step of each claim.

(See Appendix 1.1)

#### 2.1.1 Scope of the claim

|       | 1 | 2 | 3 | 4 | 5 | 6 |
|-------|---|---|---|---|---|---|
| USPTO | 2 | 2 | 2 | 2 | 2 | 2 |
| JPO   | 1 | 1 | 1 | 1 | 1 | 1 |

1: The claim was literally interpreted; i.e. all claim limitations were taken into account.

2: The claim was not literally interpreted due to the lack of clarity.

The USPTO stated that all the claims were not literally interpreted for the lack of clarity. The USPTO indicated that, although the preambles of the claims call for "granting points", no step appears in the body of the claims to actually grant the points.

The JPO mentioned that all the claims were literally interpreted because those claims are clear.

### 2.1.2 Statutory subject matter

|       | 1  | 2  | 3   | 4   | 5   | 6   |
|-------|----|----|-----|-----|-----|-----|
| USPTO | No | No | No  | No  | No  | Yes |
| JPO   | No | No | Yes | Yes | Yes | Yes |

The USPTO stated that the methods of claims 1-6 were within the technological arts since these claims were supported by a specification that described only a computer implemented version of the method. In addition to this findings, it was also mentioned regarding the "practical application" that:

- (1) "sending the notice that points were granted", which was the result of the methods of claims 1-5, merely alerted a designated person that the points existed and did not provide the person with useable value, noting that the points themselves were not associated in the claims with any real world value or use, and
- (2) the ability to redeem the points for merchandise in claim 6 associated the points with a real world value and use and thus the subject matter of claim 6 provided a practical application.

The JPO stated that a claimed subject matter was construed to be statutory if it fell under "a creation of technical idea by which law of nature is utilized " (Japanese Patent Law, Section 2). In the practice, the judgement was made to see if hardware resources were used as described in the "Implementation Guidelines for Examinations in Specific Fields: Chapter 1 -Computer Software-related Inventions".

The JPO also mentioned that:

- (1) the subject matter of claim 1 was not statutory because it merely utilized an arbitrary arrangement that corresponded to a law other than the natural law,
- (2) although claim 2 described the language of computer system such as the Internet, the subject matter of claim 2 still fell within the arbitrary arrangement, because this claim did not describe the use of hardware resources to the extent that it could be construed to be realized on a computer system, and
- (3) the subject matters of claims 3-6 were statutory because they utilized the hardware resources to the extent that they were construed to be realized on a computer system.

### 2.1.3 Novelty / Inventive step (non-obviousness): Prior art case 1

As for the prior arts (a) and (b)

|       |                | 1(a) | 2   | 3   | 4   | 5   | 6   |
|-------|----------------|------|-----|-----|-----|-----|-----|
| USPTO | Novelty        | No   | Yes | Yes | Yes | Yes | Yes |
|       | Inventive step | No   | No  | No  | No  | Yes | Yes |
| JPO   | Novelty        | No   | Yes | Yes | Yes | Yes | Yes |
|       | Inventive step | No   | No  | No  | No  | No  | Yes |

Prior art (a): Claim 1 of this hypothetical case is the prior art.

Prior art (b): A service method for granting points against the cost of the merchandise transaction taking taxes into account.

The USPTO stated that:

- (1) claim 1 lacked novelty in view of the prior art,
- (2) claim 2 lacked an inventive step in light of the prior art (a) teaching manually performing the same steps as claim 2 since the mere, general automation of steps known to have been previously performed manually was well known in the art,
- (3) claim 3 lacked an inventive step since it would have been obvious to employ a well known server to implement the recited selection and storage for the advantage of using common, off-the-shelf components,
- (4) claim 4 lacked an inventive step in view of the prior art (a) and (b),
- (5) claim 5 met the criteria for novelty and inventive step since the stated prior art failed to teach that the number of points awarded were increased to ten times the number of points normally awarded for the merchandise transaction in one out of twenty transactions, and
- (6) Claim 6 met the criteria for novelty and inventive step.

The JPO stated that:

- (1) the subject matter of claim 1 was not novel in light of the prior art (a),
- (2) the subject matters of claims 2-3 did not involve an inventive step in view of the prior art (a) since it was within the exercise of ordinary creative ability expected of a person skilled in the art to systematize existing human transactions in an applied field by means of a computer, if the transactions were such that it could be realized by a routine application of usual system analysis and system design technologies,
- (3) the subject matter of claims 4 did not involve an inventive step in light of the prior arts (a) and (b),

(4) the subject matter of claim 5 did not involve an inventive step in view of the prior art (a), (b) and the state of art, since it was well known in the state of arts to provide frequent customers with better services, and

(5) the subject matter of claim 6 had an inventive step.

### 2.1.4 Novelty / Inventive step (non-obviousness): Prior art case 2

As for the prior arts (c) and (d)

|       |                | 1  | 2  | 3(c) | 4   | 5   | 6   |
|-------|----------------|----|----|------|-----|-----|-----|
| USPTO | Novelty        | No | No | No   | Yes | Yes | Yes |
|       | Inventive step | No | No | No   | No  | Yes | Yes |
| JPO   | Novelty        | No | No | No   | Yes | Yes | Yes |
|       | Inventive step | No | No | No   | No  | No  | Yes |

Prior art (c): Claim 3 of this hypothetical case is the prior art.

Prior art (d): A service method for granting points against the cost of the merchandise transaction taking taxes into account.

The USPTO mentioned that:

- (1) claims 1-3 lacked novelty in view of the prior art (c),
- (2) claim 4 lacked an inventive step in view of the prior art (c) and (d), and
- (3) claims 5 and 6 met the criteria for novelty and inventive step as mentioned in the Prior art case 1.

The JPO stated that:

- (1) the subject matters of claims 1-3 were not novel since they were disclosed in the prior art (c),
- (2) the subject matters of claims 4 and 5 did not involve an inventive step in view of the prior arts (c) and (d), and
- (3) the subject matter of claim 6 involved an inventive step.

### 2.1.5 Final decision on Patentability

|       | 1  | 2  | 3  | 4  | 5  | 6   |
|-------|----|----|----|----|----|-----|
| USPTO | No | No | No | No | No | Yes |
| JPO   | No | No | No | No | No | Yes |

There was no difference, as a whole, in the result of the examination by the USPTO and the JPO.

## 2.2 Hypothetical Claim Set B

The hypothetical claim set B relates to a method for customers to enjoy stability in financial transactions regardless of exchange rate fluctuations, wherein the credit card issuing company invites individual credit card owners (customers) to apply for forward exchange contracts, and close a forward exchange contract in a certain amount on behalf of the individual customers.

This claim set B consists of claims 1-6. Two sets of prior arts were given for evaluating the novelty and the inventive step of each claim.

(See Appendix 1.2)

### 2.2.1 Scope of the claim

|       | 1 | 2 | 3 | 4 | 5 | 6 |
|-------|---|---|---|---|---|---|
| USPTO | 1 | 1 | 1 | 1 | 1 | 1 |
| JPO   | 1 | 1 | 1 | 1 | 1 | 1 |

1: The claim was literally interpreted; i.e. all claim limitations were taken into account.

The USPTO literally interpreted the claims although there was the indefiniteness of some words.

The JPO mentioned that all the claims were literally interpreted because those claims were clear.

### 2.2.2 Statutory subject matter

|       | 1  | 2   | 3   | 4   | 5   | 6   |
|-------|----|-----|-----|-----|-----|-----|
| USPTO | No | Yes | Yes | Yes | Yes | Yes |
| JPO   | No | Yes | Yes | Yes | Yes | Yes |

The USPTO stated that the methods of claims 1-6 were within the technological arts since these claims were supported by a specification that described a computer implemented version of the method. In addition to this finding, it was also mentioned

regarding the "practical application" as follows:

- (1) The method of claim 1 did not provide a practical application. The result of the claimed method was that two parties agreed to enter into a forward exchange contract. The agreement to the terms of the foreign exchange contract merely alerted the customer that future transactions might be settled at the foreign exchange rate specified in the contract. As a result, no practical application was recited.
- (2) Claims 2-6 recited charging a settlement amount at a specified exchange rate thereby associating the exchange rate with a real world value.

The JPO mentioned that:

- (1) the subject matter of claim 1 was not statutory because it merely utilized an arbitrary arrangement that corresponded to a law other than the natural law, and
- (2) the subject matters of claims 2-6 were statutory because they utilized the hardware resources to the extent that they were construed to be realized on a computer system.

### 2.2.3 Novelty / Inventive step (non-obviousness): Prior art case 1

As for the prior arts (a) and (b)

|       |                | 1(a) | 2   | 3   | 4   | 5   | 6   |
|-------|----------------|------|-----|-----|-----|-----|-----|
| USPTO | Novelty        | No   | Yes | Yes | Yes | Yes | Yes |
|       | Inventive step | No   | No  | No  | No  | No  | Yes |
| JPO   | Novelty        | No   | Yes | Yes | Yes | Yes | Yes |
|       | Inventive step | No   | No  | No  | No  | No  | Yes |

Prior art (a): Claim 1 of this hypothetical case is the prior art.

Prior art (b): The gold card owners are given some extra benefits that standard card (basic card) owner can not use.

The USPTO stated that:

- (1) claim 1 lacked novelty in view of the prior art (a),
- (2) claim 2 lacked an inventive step since the mere general automation of steps known to have been previously performed manually was well known in the art, and it would have been obvious to include "settling transactions" since the customer and company had an obligation to fulfil the terms of the contract,

- (3) claims 3-5 lacked an inventive step since the steps of posting an advertisement, tying the amount of the contract to a credit card limit, rejecting application and using the prevailing exchange rate were well known in the art, and
- (4) claim 6 met the criteria for novelty and inventive step since the stated prior art failed to teach the step of sending an applet to the browser.

The JPO stated that:

- (1) the subject matter of claim 1 was not novel in view of the prior art (a),
- (2) the subject matters of claims 2 and 3 did not involve an inventive step, since it was within the exercise of ordinary creative ability expected of a person skilled in the art to systematize existing human transactions in an applied field by means of computer, if the transactions were such that it could be realized by a routine application of usual system analysis and system design technologies,
- (3) the subject matter of claims 4 did not involve an inventive step in light of the prior arts (a) and (b),
- (4) the subject matter of claim 5 did not involve an inventive step since it was well-known to cancel an inconvenient reservation, and
- (5) the subject matter of claim 6 involved an inventive step.

#### 2.2.4 Novelty/Inventive step (non-obviousness): Prior art case 2

As for the prior arts (c) and (d)

|       |                | 1(a) | 2  | 3  | 4   | 5   | 6   |
|-------|----------------|------|----|----|-----|-----|-----|
| USPTO | Novelty        | No   | No | No | Yes | Yes | Yes |
|       | Inventive step | No   | No | No | No  | No  | Yes |
| JPO   | Novelty        | No   | No | No | Yes | Yes | Yes |
|       | Inventive step | No   | No | No | No  | No  | Yes |

Prior art (c): Claim 3 of this hypothetical case is the prior art.

Prior art (d): The gold card owners are given some extra benefits that standard card (basic card) owners can not use.

The USPTO mentioned that:

- (1) claim 1-3 lacked novelty,
- (2) claim 4 lacked an inventive step in view of the prior art (c) and (d),
- (3) claim 5 lacked an inventive step since the use of customer loyalty programs was

well-known, and

(4) claim 6 met the criteria for novelty and inventive step.

The JPO stated that:

- (1) the subject matters of claims 1-3 were not novel since they were disclosed in the prior art (c),
- (2) the subject matters of claims 4 and 5 did not involve an inventive step in view of the prior arts (c) and (d), and
- (3) the subject matter of claim 6 involved an inventive step.

### 2.2.5 Final decision on Patentability

|       | 1  | 2  | 3  | 4  | 5  | 6   |
|-------|----|----|----|----|----|-----|
| USPTO | No | No | No | No | No | Yes |
| JPO   | No | No | No | No | No | Yes |

There was no difference, as a whole, in the result of the examination by the USPTO and the JPO.

## 2.3 Conclusion

### (1) Claim interpretation

The USPTO and the JPO, in general, interpreted all the claims literally although USPTO indicated that some claims slightly lacked clarity.

### (2) Statutory subject matter

The USPTO stated that a claim was statutory if the claim provided "a practical application in the technological arts", whereas the JPO stated that the claimed inventions should be a creation of technical ideas utilizing natural laws.

It can, therefore, be said that both of Offices required a technical aspect as one of the criteria for a statutory subject matter. To be concrete, the USPTO stated that the claim needed to be supported by a specification that described "a computer implemented version of the method", whereas the JPO required that the use of hardware resources should be described in the claim. In addition to this, USPTO also stated that the claim should provide a practical application.

### (3) Novelty/Inventive step (non-obviousness)

Novelty and inventive step of business method related inventions were evaluated in such a manner of extracting differences between a claimed subject matter and a prior art and then evaluating the differences.

The USPTO and the JPO stated that it was within the exercise of ordinary creative activity expected of a person skilled in the art to systematize existing human transactions in an applied field by means of a computer, if the transactions were such that they could be realized by a routine application of usual system analysis and system design technologies.

### 3. Comparative Study of Group2

#### 3.1.1 Business Claim Set 1

The invention relates to a method of selecting the best insurance policy for a customer by automatically scoring the insurance policy based upon the customer information and the customer's response to questions. Additionally, there is an alternate embodiment using a mobile terminal. (See Appendix 3.1)

|                              |        | USPTO  | X | Y | A | JPO  | X | Y        | A      |
|------------------------------|--------|--|---|---|---|--|---|----------|--------|
| Patent Documents             | US     | (1)US class 705/4<br>(2)STN (full text search) | 1 |   | 2 | (2)F-term<br>(abstracts in Japanese)<br>(5)USPTO Website |   |          |        |
|                              | JP     | (4)EAST  |   |   |   | (1)F-term  | 2 | 1<br>[3] |        |
|                              | EP     | (4)EAST  |   |   |   |  |   |          |        |
|                              | Others | (4)EAST  |   |   |   | (5)EPO website   |   |          |        |
| Non-patent literatures (NPL) |        | (3)DIALOG (23 business related files)          | 1 |   | 2 | (3)F-term (CSDB)<br>(4)JOIS<br>(6)DIALOG                 |   |          | 1<br>1 |
| Total                        |        |  | 2 |   | 4 |  | 2 | 1<br>[3] | 2      |

(1), (2), (3),....: These numbers in brackets represent the search order.

Note: Figures in square brackets indicate the counts of categories when doubly counted in cases where more than one categories were given to one reference.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO stated that the claim 1 was not literally interpreted for the lack of clarity. (The USPTO interpreted the term “best insurance policy” as “the cheapest policy or the policy that most closely meets the customer’s requirements.”)
- The JPO stated that claims were interpreted literally, although the actual workings of the central database and mobile terminal in claim 2 were not clear.

#### 2. Search source

- The USPTO conducted classified search and full text search of U.S. Patents. Then, as for Japanese patent documents, the USPTO used abstracts of Japanese patents. As for non-patent literatures, the USPTO used 23 business

related files in DIALOG.

- The JPO used F-term system to search Japanese patent literatures. The JPO used F-term system to search abstracts of US patents translated to Japanese. As for non-patent literatures, the JPO used CSDB and JOIS.

### 3. Search strategy

- The USPTO conducted classified search of US patents using classification 705/4 (insurance (e.g., computer implemented system or method for writing insurance policy, processing insurance claim, etc.)) Then full text search of US patents was conducted. "Insurance" and its synonyms (such as "term life" or "whole life") were combined with other words such as "quote" which characterized this invention.

- As for Japanese patent documents, the JPO used FI classifications such as G06F15/21@T (Digital computing adapted to quote). These classifications were combined with other words that characterized this invention.

### 4. Documents considered to be relevant

- The USPTO found a "X" document by text search of US Patent database and another "X" document was found in the business related commercial database.
- The JPO found 2 "X" and 2 "Y" documents by F-term system.
- There was no document cited commonly by the two Offices

### 3.1.2 Business Claim Set 2

The invention is directed to the use of an algorithm to establish criteria for the most efficient use of a client's income. Based upon these criteria, an account manager can decide whether it is better for the client to use his income to reduce debt obligations or to increase investments. (See Appendix 3.2)

|                              |        | USPTO  | X | Y        | A | JPO                  | X | Y      | A |
|------------------------------|--------|--|---|----------|---|----------------------|---|--------|---|
| Patent Documents             | US     | (1)US class 705/35<br>36, 37, 38, 30<br>(2)STN(full text search) | 1 | 1<br>[2] | 1 | (3)WPI               |   | 1      |   |
|                              | JP     | (3)WEST(abstracts)   |   |          |   | (1)F-term            |   | 1      |   |
|                              | EP     | (3)WEST  |   |          |   | (3)WPI               |   |        |   |
|                              | Others | (3)WEST  |   |          |   | (3)WPI               |   |        |   |
| Non-patent literatures (NPL) |        | (4)DIALOG (25 business related files )                           |   |          | 3 | (2)JOIS<br>(4)DIALOG |   | 1<br>1 |   |
| Total                        |        |  | 1 | 1<br>[2] | 4 |                      |   | 4      |   |

(1), (2), (3), ...: These numbers in circles represent the search order.

Note: Figures in square brackets indicate the counts of categories when doubly counted in cases where more than one categories were given to one reference.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO stated that the intended use in the preambles of claims 1 and 2 reciting "managing client accounts" were neglected.
- Regarding clarity, the USPTO stated that some "said" features in the claims 1 and 2 lacked antecedent basis.
- The JPO interpreted claims literally.

#### 2. Search source

- The USPTO conducted classified search and full text search of U.S. Patents. Then, non-patent literatures and foreign patent databases were text-searched.
- The JPO used F-term system to text-search Japanese patent documents. Then foreign patent documents and commercial DB were text-searched.

#### 3. Search strategy

- The USPTO used U.S. Patent Classification Class 705/35 (Finance (e.g.,

banking, investment or credit.)) Then, other databases including full text of U.S. Patents were text-searched. For example, "pay debt" and their synonyms were combined with "invest portfolio" and their synonyms.

- The JPO mainly conducted text search. "Asset management" was combined with other words which characterized this invention.

#### 4. Documents considered to be relevant

- The USPTO found "X" and "Y" documents by classified search of US Patent database.

- The JPO found one "Y" document by the search of F-term system and one "Y" document was a US patent literature.

- There was no document commonly cited by the two Offices

### 3.1.3 Business Claim Set 3

The invention relates to associating data regarding various mortgagors with data of their respective locations to rank data items meeting desired criteria. (See Appendix 3.3)

|                              |        | USPTO   | X        | Y | A        | JPO   | X        | Y        | A |
|------------------------------|--------|---|----------|---|----------|---|----------|----------|---|
| Patent Documents             | US     | US class 705/38 text search                                       | 1        |   | 1        | (4)USPTO website<br>(6)F-Term (US patent abstracts in Japanese) |          |          |   |
|                              | JP     | WEST(abstracts)   |          |   |          | (1) F-term  |          | 1        | 1 |
|                              | EP     | WEST  |          |   |          | (7)EPO website  |          |          |   |
|                              | Others | WEST  |          |   |          |   |          |          |   |
| Non-patent literatures (NPL) |        | WEST( IBMTDB) WWW search<br><br>DIALOG(17 business related files) |          |   | 1        | (2)F-term(CSDB)<br>(3)JOIS<br>(4)WWW search<br>(8)DIALOG        |          | 1        |   |
| <b>Total</b>                 |        |   | <b>1</b> |   | <b>2</b> |   | <b>2</b> | <b>1</b> |   |

(1), (2), (3), ...: These numbers in brackets represent the search order.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO interpreted the claim literally since the claim was so broad that a “X” documents was easily found. The USPTO stated that some features in the claim were non-functional and therefore deserved no patentable weight. The USPTO stated that claim 1 would be rejected under 35 U.S.C. 112, second paragraph for being written in an improper computer program product format.
- The JPO interpreted the claims literally.

#### 2. Search source

- The USPTO conducted classified search and text search of U.S. Patents. Then, foreign patent databases including abstracts of Japanese patents, the Internet, and Business related commercial databases were searched.
- The JPO used F-term system to text-search Japanese patent documents, CSDB, and US patent abstracts in Japanese.

#### 3. Search strategy

- The USPTO used U.S. Patent Classification Class 705/38 (Credit (risk)

processing or loan processing (e.g., mortgage). Class 705/38 is a subclass of Finance (e.g., banking, investment or credit.) Then, other databases including full text of U.S. patents were text-searched. For example, "the concept of choosing lenders by their respective locations" was used for text search.

- The JPO mainly conducted search by combining FI classifications with text search. For example, G06F15/21@F (management of real estate information) was used as a FI classification, and combined with other words such as "mortgage," "rank," and "location" which characterized this invention.

#### 4. Documents considered to be relevant

- The USPTO found one "X" document by classified search of US Patent database.

- The JPO found one "Y" document and one "A" document by the search of F-term system.

- There was no document commonly cited by the two Offices

### 3.1.4 Database Claim Set

The invention relates to a system and method for optimizing the retrieval of data from plural archival databases considering the location and availability of each database. (See Appendix 3.4)

|                              |        | USPTO       | X | Y | A | JPO  | X | Y | A |
|------------------------------|--------|-------------|---|---|---|--|---|---|---|
| Patent Documents             | US     | EAST(USPAT) | 1 |   | 7 | (3)F-term (US patent abstracts in Japanese)        |   |   |   |
|                              | JP     | EAST        |   |   |   | (2)F-term  |   | 1 |   |
|                              | EP     | EAST        |   |   |   |  |   |   |   |
|                              | Others | DERWENT     |   |   |   |  |   |   |   |
| Non-patent literatures (NPL) |        | EAST        |   |   |   | (3)F-term (CSDB)<br>(4)JOIS<br>(1),(5)Paper search |   | 2 | 1 |
| Total                        |        |             | 1 |   | 7 |  |   | 3 | 1 |

(1), (2), (3), ...: These numbers in brackets represent the search order.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO stated that the body of the claims 1-5 were not consistent with "optimize the retrieval of data" in the preamble.
- The USPTO stated that claims 1 and 2 would not be statutory, the claims were examined for the compact prosecution.
- The JPO treated claims 1 and 2 as invention of "product".

#### 2. Search source

- The USPTO conducted classified search and text search of U.S. Patents. Then, foreign patent databases were searched.
- The JPO used F-term system to text-search Japanese patent documents, CSDB, and abstracts of US patent abstracts in Japanese. Then, commercial databases and books were searched

#### 3. Search strategy

- The USPTO used U.S. Patent Classification Classes in 707 (Database), such as 707/2 (Access augmentation or optimizing) and 707/10(Distributed or remote access) Then, other databases including full text of US patents were text-searched. For example, "database" and its synonyms were combined with other words that characterized this invention.
- The JPO started the search by searching well-known arts from books. Then,

the JPO used F-term system using mainly FI classifications and text search.

4. Documents considered to be relevant

- The USPTO found “X” document by searching US Patent database using various search tools.
- The JPO cited 3 non-patent literatures found by paper search.
- Although there was no document commonly cited by the two Offices, “X” document cited by the USPTO was a prior patent application of one “Y” document cited by the JPO, and these two documents were similar and the inventors were the same.

### 3.1.5 Graphics Claim Set

The invention relates to segregating a virtual reality world by a boundary selected by a user, and rendering all objects within the boundary, and viewing rendered objects from multiple perspectives by the user for greater detailed view. (See Appendix 3.5)

|                              |        | USPTO  | X        | Y | A        | JPO                                    | X | Y        | A        |
|------------------------------|--------|--|----------|---|----------|--|---|----------|----------|
| Patent Documents             | US     | EAST (US class 345/433,434,355)<br>DIALOG (full text search) | 1        |   | 2        | (3)WPI                                 |   |          |          |
|                              | JP     |  |          |   |          | (2)F-term System<br>(3)WPI (abstracts) |   | 2        | 1        |
|                              | EP     |  |          |   |          | (3)WPI                                 |   |          |          |
|                              | Others |  |          |   |          | (3)WPI                                 |   |          |          |
| Non-patent literatures (NPL) |        | ACM<br>IEEE  |          |   | 2        | (1)Paper search                        |   | 1        | 1        |
| <b>Total</b>                 |        |  | <b>1</b> |   | <b>4</b> |  |   | <b>3</b> | <b>2</b> |

(1), (2), (3), ...: These numbers in brackets represent the search order.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO and the JPO interpreted claims literally.

#### 2. Search source

- The USPTO conducted classified search of U.S. Patents. Then, non-patent literatures including ACM and IEEE were searched.
- The JPO searched non-patent literatures by paper search. Then, the JPO used F-term system to text-search Japanese patent documents. Then, foreign patent documents were searched.

#### 3. Search strategy

- The USPTO used U.S. Patent Classification Class such as 345/434 (Clipping of computer graphics) for classified search. Then, a non-patent literature search in ACM and IEEE was conducted because it was recognized to be superior for this type of graphical applications.
- The JPO searched magazines and users manuals of products at first because it was probable that this invention was used in 3D simulation games. Then, the JPO used F-term system mainly using FI classifications and text search.

Then, foreign patent documents were text-searched.

4. Documents considered to be relevant

- The USPTO found one "X" document by classified search of US Patent databases.
- The JP found one "Y" document by paper search. Two "Y" documents were found by using various search tools.
- There was no document commonly cited by the two Offices.

### 3.1.6 Internet Claim Set

The invention relates to background transfer and local cache storage of secondary information data to be displayed on the users' browser upon selection of a hyperlink in a first document. (See Appendix 3.6)

|                              |        | USPTO                               | X | Y | A | JPO   | X  | Y | A |
|------------------------------|--------|-------------------------------------|---|---|---|---|----|---|---|
| Patent Documents             | US     | (1)EAST (text search, US class 709) | 3 | 2 |   | (2)F-term (US patent abstracts in Japanese)                     |    |   |   |
|                              | JP     |                                     |   |   |   | (1)F-term   | 3* |   |   |
|                              | EP     |                                     |   |   |   |   |    |   |   |
|                              | Others |                                     |   |   |   |   |    |   |   |
| Non-patent literatures (NPL) |        | (2)IEEE(abstr act)<br>(3)RFC        |   |   |   | (3)F-term (CSDB)<br>(4)JOIS<br>(5)WWW search<br>(6)Paper search | 1* |   |   |
| Total                        |        |                                     | 3 | 2 |   |   | 3  |   |   |

NOTE: In this case, one "X" document from the JPO was doubly counted since the document was found both by F-term and JOIS.

(1), (2), (3), ...: These numbers in brackets represent the search order.

#### 1. Scope of the claim as interpreted by the Offices

- The USPTO and the JPO interpreted claims literally.

#### 2. Search source

- The USPTO conducted classified search and text search of U.S. Patents. Then, non-patent literatures including IEEE and RFC were searched.
- The JPO used F-term system to text-search Japanese patent documents, CSDB and US patent abstracts in Japanese. Then commercial databases and books were searched.

#### 3. Search strategy

- The USPTO text-searched U.S. patent documents. Then, the USPTO used U.S. Patent Classification Class such as 709 (Client-server system). Then non-patent literatures including IEEE and RFC (Request for Comments) were text searched.
- The JPO searched F-term system, non-patent literatures, and the Internet in this order.

#### 4. Documents considered to be relevant

- The USPTO cited three "EX" documents and two "EY" documents, which were found by text search or classified search of US Patent databases.

(JPO)

- The JPO cited one "X" and two "EX" documents.

- Two "EX" documents were Japanese patent documents.

- Two "EX" documents were found by search of F-term system. The "X" document was cited by the "EX" document. The same "X" document was found by searching JOIS.

- There was no document commonly cited by the two Offices.

### 3.2 General Table of cited references

|                              |        | USPTO  | X        | Y        | A         | JPO  | X        | Y         | A        |
|------------------------------|--------|--|----------|----------|-----------|--|----------|-----------|----------|
| Patent Documents             | US     | US class 705<br>STN<br>DIALOG                            | 8        | 3        | 13        | F-term<br>WPI<br>USPTO website                               |          | 1         |          |
|                              | JP     | EAST, WEST   |          |          |           | F-term   | 5        | 6         | 2        |
|                              | EP     | EAST, WEST   |          |          |           | WPI  |          |           |          |
|                              | Others | EAST, WSET   |          |          |           | WPI  |          |           |          |
| Non-patent literatures (NPL) |        | DIALOG<br>EAST, WEST<br>WWW search<br>ACM<br>IEEE<br>RFC | 1        |          | 8         | F-term(CSDB)<br>DIALOG<br>JOIS<br>WWW search<br>Paper search | 1        | 6         | 4        |
| <b>Total</b>                 |        |  | <b>9</b> | <b>3</b> | <b>21</b> |  | <b>6</b> | <b>13</b> | <b>6</b> |

This general table shows documents cited in six hypothetical cases by category.

The USPTO cited most prior arts from their domestic patent databases, while the JPO cited prior arts not only from their domestic patent databases but also from the non-patent databases and information on the Internet.

### 3.3 Conclusion

#### (1) Search source

The USPTO and the JPO used their domestic patent databases, foreign patent (abstract) databases, commercial databases and so on as search sources. These search sources used by each Office were considerably different. For example, the USPTO mainly used "DIALOG" database as non-patent literature database, whereas the JPO mainly used JOIS and the in-house CS-database (Computer Software database).

#### (2) Search strategy

The USPTO and the JPO searched the domestic patent databases at first. Then the foreign patent abstract databases, non-patent (in-house, commercial) databases and information on the Internet were searched.

#### (3) Documents considered to be relevant

The USPTO and the JPO presented the prior arts (X, EX or Y) for all six hypothetical cases. However, the USPTO and the JPO did not present common prior arts.

The USPTO cited most prior arts from their domestic patent databases. The JPO cited prior arts not only from their domestic patent databases but also from the non-patent databases and information on the Internet.

Although the USPTO and the JPO searched patent abstract databases to search foreign patent literatures, few prior arts were cited.

## **4. Further consideration**

- (1) Based upon the study of Group1, the practices of the USPTO and the JPO were consistent in that both Offices required a technical aspect as a criterion for a statutory subject matter of business method related inventions, and that an invention derived by merely automating known business methods on a computer did not involve an inventive step. Here, it is to be noted that the difference in the requirements for statutory subject matter did not seem to be major, given that the examination results as a whole were consistent between the USPTO and the JPO.
- (2) The study of Group 2 shows that both the USPTO and the JPO found documents considered to be relevant to all the claims of the hypothetical cases. It should be noted, however, that there was no search source commonly used by both Offices nor documents commonly cited by them.
- (3) It is well recognized that business methods are not well-documented and IP Offices sometimes find it difficult to locate documents connected with business methods in spite of the fact that business methods per se have been practiced for a long time, which is an essential problem in examining business method related inventions. Therefore, the Offices recognize the need to improve their documentation in this area and should explore new possibilities to do this including cooperation with the user community to identify and acquire access to the best sources of pertinent prior art.
- (4) Taking into account the above-mentioned situation, it can be said that this study raised a challenge as to how to carry out a higher-quality of search for business method related inventions. In this regard, and taking into account the EPO views on examination in this area (Appendix 6), the Trilateral Offices should focus, as a next stage, on collaboration of searching prior art in this field in the framework of Trilateral cooperation.