Software patents and program developments
Matters to be considered

◆ Patent Law, enacted by each country. PCT is …

◆ Software patent
  Common to most patent laws
  ・ Patent as equivalent hardware structure
  ・ Method relating to hardware

◆ Ask to patent attorney? Patent procedures by inventor?

◆ Patent strategy
  Trial is no purpose.
  However, we have to prepare conditions, by which we can win the trial, for advantageous negotiation.

◆ To what country do we submit patent application?
  JPO, USPTO, SIPO …

◆ Employee's invention

Matters to be considered
USPTO, United States Patent and Trademark Office
### Secured Patent Application Information Retrieval

#### Records found for Customer Number

9 records found for Customer Number 92764 sorted by Application Number Descending

<table>
<thead>
<tr>
<th>Application</th>
<th>Patent</th>
<th>Earliest Publication</th>
<th>Attorney Docket No.</th>
<th>Status Date</th>
<th>Filing or 371(c) Date</th>
<th>Image File Wrapper</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/915,158</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11-29-2010</td>
<td>-</td>
<td>View</td>
</tr>
<tr>
<td>09/117,669</td>
<td>6,526,455</td>
<td>-</td>
<td>-</td>
<td>02-06-2003</td>
<td>08-04-1998</td>
<td>View</td>
</tr>
</tbody>
</table>

Results sorted by Application Number Descending

1: 13251295 - 09117669

If you need help:
- Call the Patent Electronic Business Center at (866) 217-9197 (toll free) or e-mail PBC@uspto.gov for specific questions about Patent Application Information Retrieval (PAIR).
- Send general questions about USPTO programs to the USPTO Contact Center (UCC).
USPTO, United States Patent and Trademark Office
The United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed.

The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

David J. Kupper
Director of the United States Patent and Trademark Office
(54) METHOD AND APPARATUS FOR CHANGING REFERENCE OF DATABASE

(76) Inventor: Kunio Kamimura, Koganei (JP)

( * ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 12/688,854

(22) Filed: Jan. 15, 2010

(65) Prior Publication Data
US 2010/0131479 A1 May 27, 2010

Related U.S. Application Data

(30) Foreign Application Priority Data

(10) Patent No.: US 8,171,003 B2
(45) Date of Patent: May 1, 2012

5,870,765 A 2/1999 Bauer et al.
5,890,176 A 3/1999 Kish et al.
5,926,816 A 7/1999 Bauer et al.
6,088,694 A* 7/2000 Burns et al. .............................. 1/1
6,151,606 A 11/2000 Mendez
6,343,299 B1 1/2002 Huang et al.

(Continued)

FOREIGN PATENT DOCUMENTS

(Continued)

OTHER PUBLICATIONS

(Continued)

Primary Examiner — Brent Stace
<table>
<thead>
<tr>
<th>請求</th>
<th>四法</th>
<th>手続き名</th>
<th>管理番号</th>
<th>項目及び事件の表示</th>
<th>出願番号</th>
<th>提出日</th>
</tr>
</thead>
<tbody>
<tr>
<td>接受</td>
<td>特許</td>
<td>特許可納付書</td>
<td>特願2010-250142</td>
<td>2012/02/06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>意見書</td>
<td>特願2010-250142</td>
<td>2011/12/21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>特願2010-250142</td>
<td>2011/11/21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>早期審査に関する事情説明書</td>
<td>特願2010-250142</td>
<td>2011/11/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>上申書</td>
<td>特願2010-250142</td>
<td>2011/11/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>特願2010-250142</td>
<td>2011/11/14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>特許料納付書</td>
<td>特願2010-515778</td>
<td>2011/10/26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>特願2010-515778</td>
<td>2011/10/26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>不服2010-025659</td>
<td>特願2010-515778</td>
<td>2011/09/27</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>不服2010-026288</td>
<td>特願2010-515778</td>
<td>2011/09/27</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>意見書</td>
<td>不服2010-025659</td>
<td>特願2010-515778</td>
<td>2011/08/12</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>不服2010-026288</td>
<td>特願2010-515778</td>
<td>2011/08/12</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>不服2010-026288</td>
<td>特願2010-515778</td>
<td>2011/07/15</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>不服2010-026288</td>
<td>特願2010-515778</td>
<td>2011/07/15</td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>手続補正書</td>
<td>特願2010-515675</td>
<td>2011/06/02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>接受</td>
<td>特許</td>
<td>出願審査請求書</td>
<td>特願2010-515675</td>
<td>2011/06/02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Folder Name</td>
<td>Delivery Method</td>
<td>Reference Code</td>
<td>Event Number</td>
<td>Date</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>--------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>2012-01-31</td>
<td>395022203</td>
<td></td>
<td>P249131</td>
<td>057995</td>
<td>12:15:59</td>
<td></td>
</tr>
<tr>
<td>2011-12-05</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-10-24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-09-27</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-07-13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-06-15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-05-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-05-09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-03-17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-02-14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-02-08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12-22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-12-06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-11-30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-10-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-08-24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-08-23</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-08-11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-07-06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JPO, Japan Patent Office**
特許証
（Certificate of Patent）
特許第4855537号
（Patent Number）

発明の名称
（Title of the Invention）
データベース並行編集方式

特許権者
（Patentees）
東京都小金井市東町 丁目 番 号
株式会社アテナテレコムラボ

発明者
（Inventor）
上村 邦夫

出願番号
（Application Number）
出願日
（Filing Date）
特願2010-515775
平成21年6月3日（June 3, 2009）
登録日
（Registration Date）
平成23年11月4日（November 4, 2011）

この発明は、特許するものと確定し、特許権に登録されたことを証する。

特許庁長官
（Commissioner, Japan Patent Office）
平成23年11月4日（November 4, 2011）

岩井 良行

Athena Telecom Lab, Inc.
Patents granted easily

Very complicated structure. …

No one needs it.

➔ It is enough, if your purpose is to display a patent certificate at your office.

VS

Patents useful for business (Examples 1 and 2)

Invention of simple structure.

It is convenient, though no one has shown it.

Many people want to use it.

(Note)

It is difficult to be granted as patent, if everybody has thought of it.

➔ Efforts for getting patents.

Design of patents that will not be broken easily.

Patent strategy
### Example 1: Table of slot machine type

<table>
<thead>
<tr>
<th>Name</th>
<th>Development Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>Embarcadero</td>
</tr>
<tr>
<td>Ballmer</td>
<td>Visual Studio</td>
</tr>
<tr>
<td>Fujii</td>
<td>Embarcadero</td>
</tr>
<tr>
<td>Mr. X</td>
<td>Eclipse</td>
</tr>
</tbody>
</table>

(Traditional)

**Click**

<table>
<thead>
<tr>
<th>Name</th>
<th>Development Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown</td>
<td>AAA</td>
</tr>
<tr>
<td>Ballmer</td>
<td>Visual Studio</td>
</tr>
<tr>
<td>Fujii</td>
<td>Embarcadero</td>
</tr>
<tr>
<td>Mr. X</td>
<td>Eclipse</td>
</tr>
</tbody>
</table>

**Click**

PCT/JP08/1566

<table>
<thead>
<tr>
<th>Name</th>
<th>Development Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballmer</td>
<td>AAA</td>
</tr>
<tr>
<td>Brown</td>
<td>Visual Studio</td>
</tr>
<tr>
<td>Fujii</td>
<td>Embarcadero</td>
</tr>
<tr>
<td>Mr. X</td>
<td>Eclipse</td>
</tr>
</tbody>
</table>

**Click**
Problems to be solved by example 2
Mechanism for synchronization of duplications edited by parallel editing work

Japan: 4 patents granted, 2 to be examined.
US: 3 under examination.

Example 2: Synchronization of duplications edited by parallel editing work (PCT/JP2009/002491)
Amendment Arguments/Remarks Made in an Amendment

1. Understanding of KEMME (*)
   1.1 Serializability
   1.2 Communication realized by multicast
   1.3 Order of messages
   1.4 SER, database replication protocol
   1.5 SI, database replication protocol

2. Features of amended claims compared with KEMME

3. Detailed explanation of amended claims

4. Answers to the office action

Appendix A: KEMME (*)
Appendix B: BERNSTEIN (**)
Appendix C: Isis by BIRMAN
Appendix D: Transis by DOLEV
Appendix E: Totem by MOSER
Appendix F: Horus by RENESSE


Efforts for getting patents.:
Response to USPTO
Usual structure of patent

Specification (ex. cars)

Claim 1 (cart + wheel)

Claim 2 (cart + one wheel)

Claim 3 (cart + two wheels)

Claim 4 (cart + three wheels)

...
Design of patents that will not be broken easily
(Conceptual structure of example 2)
(Plan A) Commercialization of software
  - Upgrading of prototypes
  - If you need information, please contact ed22@atele.com

(Note)
Restricted is information that may be provided before announcement of the commercialized software.

And / or

(Plan B) Permission of the patents for your software products.

And / or

(Plan C) Joint development of software components based on the patents

Business deployments
Wise strategy is necessary, if open source based softwares are used.

- GCC
- JDK
- Eclipse

Commercial softwares for developments.

- Visual Studio
- Embarcadero ⇐ Multi-platform

Environments for software developments.