RPX
RATIONAL PATENT

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

An Analysis Prepared by RPX Corporation in Advance of the SCOTUS Hearing on Software Patentability-Eligibility

I. INTRODUCTION AND HIGH-LEVEL FINDINGS

In light of the Supreme Court's upcoming consideration of the patentability of claims to computer-implemented inventions,[1] RPX analyzed recently asserted patents to assess the potential impact of a new rule. Three patent professionals each reviewed the independent claims of the a random set of patents asserted by non-practicing entities (NPEs)[2] in 2012 and a random set of patents asserted by operating companies (OpCos) in 2012. The professionals categorized each patent based on whether the patent included claims to computer-implemented inventions and claims subject to covered business method review.[3] The study is discussed in more detail in the Methodology section below.

Key findings include the following:

- Claims to computer-implemented inventions were common. Thirty-nine percent (39%) of the random sample set included at least one claim we categorized as a computer-implemented invention.

- Claims to covered business methods were uncommon. Three percent (3%) of the random sample set included at least one claim we categorized as a covered business method.

- NPEs were more likely than operating companies to assert a patent that included at least one claim we categorized as a computer-implemented invention. Fifty-eight percent (58%) of the sample set of NPE patents included a claim to a computer-implemented invention as compared to twenty-one percent (21%) of operating company patents.

Please contact RPX at whitepaper@rpxcorp.com if you would like further information regarding this study or are interested in hearing more about RPX's services and capabilities.

[1] The question presented to the Supreme Court of the United States (SCOTUS) in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l* is "[w]hether claims to computer-implemented inventions—including claims to systems and machines, processes, and items of manufacture—are directed to patent-eligible subject matter within the meaning of 35 U.S.C. § 101 as interpreted by this Court?"

[2] For the definition of NPE and a description of how RPX identifies NPEs, please see the methodology section of the 2012 RPX NPE Activity Report at http://www.rpxcorp.com/key-patent-market-trends.

[3] While the question presented to the Supreme Court addresses the broader category of computer-implemented inventions, the challenged claims in *CLS Bank* appear to be subject to the recently introduced covered business method review proceedings at the USPTO. To the extent that the Court's decision may focus on patents similar to those in *CLS Bank*, the covered business method categorization may be more relevant.

II. RPX'S METHODOLOGY

Categorizing a particular claim according to whether it is to a computer-implemented invention or a covered business method is a difficult decision that ultimately involves an exercise of judgment. Categorization is not susceptible to a strict methodology that others can apply to achieve identical results. With this in mind, RPX designed a methodology we believe gives significant insight into the sample sets, and due to consistent application across the sample sets, allows for meaningful comparison between NPEs and operating companies.

1. Sample Sets

We selected the following sets of litigated patents for our analysis.[4]

- **Random Operating Company** – 433 randomly selected patents asserted by operating companies in 2012.
- **Random NPE** – 392 randomly selected patents asserted by NPEs in 2012.

These 825 selected patents included both design patents and utility patents and had 189 distinct class codes.

2. Analyzing and Categorizing Patents

We analyzed every independent claim in the selected patents to determine whether the subject claim was directed to a computer-implemented invention and/or a covered business method. In doing so, we focused on two principles: analyzing the claims in light of relevant authority; and whenever possible, achieving consensus and consistency in our determinations.

A. Claim Analysis

We undertook a flexible approach in light of relevant statutes, rules and regulations, and court decisions.

Computer-implemented Inventions

We considered the broad question of whether a claim is directed to a computer-implemented invention by initially identifying the invention in the subject claim (the arguably novel aspect) and then determining whether the invention is implemented by a computer.

Covered Business Method

We considered the question of whether a claim is directed to a covered business method by applying the rule promulgated and applied by the USPTO.[5] Accordingly, we initially determined whether the subject claim is directed to "a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or

[4] The numbers of patents in the random operating company and random NPE sets were selected so that the results for each set would have a 95% confidence interval with a margin of error of plus or minus five percent (±5%). In 2012, there were 1,719 patents asserted by NPEs and 2,869 patents asserted by operating companies. The random data sets include a total of 825 patents out of 4,588 patents litigated in 2012 yielding a 3.6% margin of error with a 95% confidence interval for combined results.

[5] The rule sets out a two-part test, a first part being defined in 37 C.F.R. § 42.301(a) and a second part being defined in § 42.301(b).

service". We then determined (1) "whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art", and (2) "whether the claimed subject matter as a whole. . . solves a technical problem using a technical solution."

B. Consensus-building and Consistency

Three patent professionals—two patent attorneys and a patent agent—conducted the analysis. Each patent professional read and analyzed each independent claim and provided a preliminary answer as to whether the subject patent included no claims to computer-implemented inventions ("NONE"), some claims to computer-implemented inventions ("SOME"), or all claims to computer-implemented inventions ("ALL"). If all three professionals did not come to the same conclusion, they discussed the relevant issues to attempt to reach a consensus. If a consensus was reached before or after discussion, the patent was categorized according to the consensus. In rare instances where a consensus was not reached after discussion, a majority vote was used to determine the categorization. The patent professionals repeated this process with respect to covered business methods.

For exemplary categorizations of claims that may be directed to computer-implemented inventions, please refer to Appendix A.

For exemplary categorizations of claims that may be directed to covered business methods, please refer to Appendix B.

III. RESULTS

1. Categorization Results

Tables 1 and 2 show the categorization results. The first two rows includes the percentage of patents in each sample set that were categorized as NONE, SOME, or ALL. The last row includes aggregated totals of the NPE Random and OpCo Random sets.

Table 1. Computer-implemented Categorization by Sample Set

	Computer-implemented Invention Claims?		
	NONE	SOME	ALL
NPE Random	42%	5%	53%
OpCo Random	79%	<1%	21%
Total Random	61%	3%	36%

Table 2. Covered Business Method Categorization by Sample Set

	Covered Business Method Claims?		
	NONE	SOME	ALL
NPE Random	95.9%	0.8%	3.1%
OpCo Random	97.5%	0.0%	2.5%
Total Random	96.8%	0.4%	2.8%

2. Assertion Breadth Analysis

We used RPX's proprietary litigation database to generate various metrics of assertion breadth for each sample set including unique campaigns, total campaign defendants, unique defendants, total case defendants, and total cases.[6] These metrics are provided in Appendix C on an absolute and per-patent basis for each grouping.

3. Class Code Analysis

We also sorted our results based on United States Patent Classification (USPC) class codes for each categorized patent. These data are attached as Appendices D and E.

[6] A "campaign" is defined as all cases filed by the same corporate plaintiff family where each case has at least one patent or family member of a patent in common with another case in the campaign. A "campaign defendant" is a unique combination of a defendant and campaign. Definitions for "case", "case defendant", and "unique defendant" can be found in RPX's 2012 NPE Activity Report at http://www.rpxcorp.com/key-patent-market-trends.

APPENDIX A

We provide the following exemplary categorizations of claims with brief supporting reasoning to illustrate aspects of our methodology for determining whether claims are directed to computer-implemented inventions.

Title	Exemplary Claim	Computer-implemented Invention Claim?	Brief Reasoning
Highway distress system	1. A system for noting the existence of a distress condition of a motor vehicle and the location of the vehicle within a limited geographical area, that comprises: transceiver means on the vehicle operable to transmit a multidirectional RF signal from the vehicle to a limited geographical area around the vehicle, the transmitter portion of the transceiver being low power of the order of watts and the signal frequency being at least the order of 450MHz to assure limited transmission range of the signal, the occurrence of the signal being an indication of a distress-condition of the vehicle, said transceiver means also being operable to receive an RF incoming signal, timer means operable to cause the transceiver automatically to transmit and to receive RF signal as alternate conditions of transceiver operation, said transceiver means having means to override the automatic cycle to permit voice frequency transmission only or voice frequency receiving only; a plurality of radio direction finding devices adapted to receive the signal transmitted by the transceiver and to locate the source of the transmitted signal in terms of the direction thereof from each device; and display means to permit plotting the direction	NO	Independent claim 1 is not a computer-implemented invention. The claim recites with sufficient specificity physical requirements (e.g. “low power on the order of watts” and “the signal frequency being at least the order of 450MHz”) that require certain hardware specifications that are not implementable solely by a computer. These physical requirements requiring hardware specifications arguably contribute to the “invention” of having a low-power transceiver that operates only within a limited geographical area.

Title	Exemplary Claim	Computer-implemented Invention Claim?	Brief Reasoning
	of the source of the signal from each radio direction finding device and, thus, permit determination of the vehicle location.		
Patient signal dispatcher	1. Apparatus comprising: means for receiving clinical information concerning a patient's medical condition; means for entering patient identification information into a memory; optical display means for displaying the patient identification information entered; and means for transmitting the displayed patient identification information with the clinical information.	YES	Claim 1 is directed to a computer-implemented invention. Although the claim explicitly recites an apparatus and various means for receiving, entering, displaying, and transmitting, the invention is directed to reducing technician error by having information input once and stored into a memory for further reuse. Because the apparatus and various means are not restricted to specific hardware implementations that contribute to the invention as a whole and because the claim can be performed with a general-purpose computer with generic means-for components, the claim is directed to a computer-implemented invention.

APPENDIX B

We provide the following exemplary categorizations of claims with brief supporting reasoning to illustrate aspects of our methodology for determining whether claims are directed to covered business methods.

Title	Exemplary Claim	Covered Business Method?	Brief Reasoning
Cash register with a multi-window display	1. A cash register comprising: a keyboard having a plurality of sales item keys for generating sales data for each of a plurality of customers and a plurality of control keys; memory means having a plurality of storage areas corresponding respectively to said customers; calculating means; a controller means for addressing said storage areas to store said sales data of said customers into said storage areas and causing said calculating means to calculate the sales data stored in each of said storage areas in response to operation of one of said control keys; and display means having a plurality of display windows respectively corresponding to said storage areas and connected to said controller means for displaying in the corresponding display windows a plurality of sales data stored in said storage areas and a plurality of data resulting from the calculation by said calculating means.	NO	The patent is not a covered business method patent, not because claim 1 explicitly recites a cash register (a covered business method patent can claim a method OR corresponding apparatus, see 37 C.F.R. § 42.301(a)) but because the claim arguably falls within the technological invention exception. The display means has a plurality of display windows corresponding to different data thus separating sales data thereby speeding up visual identification of each customer's relevant data.

Title	Exemplary Claim	Covered Business Method?	Brief Reasoning
System for the operation of a financial account	15. A method for operating a client's home mortgage account comprising the steps of: (a) securing a liability with a mortgage on at least one home and one or more asset accounts; (b) allocating funds received in mortgage payments to pay interest on the mortgage with at least a portion of the remainder of funds received being used to increase an asset account rather than amortize the mortgage; (c) calculating a borrowing power for the client's home mortgage account by calculating for each asset account an asset loan value equal to the product of an asset account value and a loan to value ratio, calculating for each home a home loan value equal to the product of a value of the home and a home loan to value ratio, summing all said asset loan values and home loan value(s) and deducting from said sum any mortgage balance and all other liabilities that are part of the home mortgage account; (d) establishing a minimum borrowing power; (e) comparing the calculated client account's borrowing power with the minimum borrowing power; (f) indicating an account imbalance has occurred if the client account's borrowing power is less than the minimum borrowing power; (g) modifying the account to correct the account imbalance if such an account imbalance has occurred; (h) recalculating the borrowing power for the	YES	The claim is directed to a covered business method, because it is directed to liquidating assets if a mortgagor's liquidated assets do not provide sufficient borrowing power, which is a financial service. Although the claim explicitly recites method steps of calculating and recalculating and the specification describes a supporting computer system, the steps of calculating and recalculating (and other methods steps) using a general purpose computer are not sufficient to make the claim directed to a technological invention, because the claim fails to include language limiting the claim to a technological problem.

Title	Exemplary Claim	Covered Business Method?	Brief Reasoning
	client's home mortgage account as in paragraph (c) after modifying the client account; (i) comparing the recalculated borrowing power to the minimum borrowing power; (j) indicating that the account imbalance cannot be corrected if the recalculated borrowing power is less than the minimum borrowing power; and (k) liquidating assets in one or more asset accounts to decrease the liability secured by the mortgage if the account imbalance cannot be corrected.		

APPENDIX C

Assertion Breadth – All Patents

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	263	1,661	1,182	1,859	1,256
OpCo Random	332	680	606	704	462
Total Random	595	2,341	1,733	2,563	1,718

Per-Patent Assertion Breadth – All Patents

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	4.2	4.7	3.2
OpCo Random	1.6	1.6	1.1
Total Random	2.8	3.1	2.1

Patents with ALL Computer-implemented Claims

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	145	1,153	809	1,268	911
OpCo Random	68	120	108	115	94
Total Random	213	1,273	900	1,383	1,005

Per-Patent Assertion Breadth – Patents with ALL Computer-implemented Claims

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	5.6	6.2	4.4
OpCo Random	1.3	1.3	1.0
Total Random	4.3	4.7	3.4

Assertion Breadth – Patents with SOME Computer-implemented Claims

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	16	94	91	126	63
OpCo Random	2	3	3	3	3
Total Random	18	97	94	129	66

Per-Patent Assertion Breadth – Patents with SOME Computer-implemented Claims

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	4.7	6.3	3.2
OpCo Random	1.5	1.5	1.5
Total Random	4.4	5.9	3.0

Assertion Breadth – Patents with No Computer-implemented Claims (NONE)

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	123	533	473	600	369
OpCo Random	266	563	503	592	370
Total Random	389	1,096	953	1,192	739

Per-Patent Assertion Breadth – Patents with No Computer-implemented Claims (NONE)

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	3.2	3.6	2.2
OpCo Random	1.7	1.7	1.1
Total Random	2.2	2.4	1.5

Assertion Breadth – Patents with ALL Covered Business Method Claims

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	11	42	39	43	25
OpCo Random	9	21	20	21	14
Total Random	20	63	59	64	39

Per-Patent Assertion Breadth – Patents with ALL Covered Business Method Claims

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	3.5	3.6	2.1
OpCo Random	1.9	1.9	1.3
Total Random	2.7	2.8	1.7

Assertion Breadth – Patents with SOME Covered Business Method Claims

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	3	20	19	38	7
OpCo Random	0	0	0	0	0
Total Random	3	20	19	38	7

Per-Patent Assertion Breadth – Patents with SOME Covered Business Method Claims

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	6.7	12.7	2.3
OpCo Random	–	–	–
Total Random	6.7	12.7	2.3

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Assertion Breadth – Patents with No Covered Business Method Claims (NONE)

	Unique Campaigns	Campaign Defendants	Unique Defendants	Case Defendants	Cases
NPE Random	238	1,599	1,144	1,778	1,228
OpCo Random	296	659	587	683	448
Total Random	534	2,258	1,678	2,461	1,676

Per-Patent Assertion Breadth – Patents with No Covered Business Method Claims (NONE)

	Campaign Defendants Per Patent	Case Defendants Per Patent	Cases Per Patent
NPE Random	4.3	4.7	3.3
OpCo Random	1.6	1.6	1.1
Total Random	2.8	3.1	2.1

APPENDIX D

The following table shows the computer-implemented invention categorization of patents in each randomly selected set (NPE, OpCo, and All) by USPC class codes. The numerically sorted class codes are shown in the left-most column. Each set has a column showing the total numbers of patents categorized as having None (N), All (A), Some (S) or at least one (A+S) claim directed to a computer-implemented invention, the percentage of patents in the class having at least one claim directed to a computer-implemented invention (A+S%), and the total number of patents evaluated in the class (Total).

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
1	Undefined	0	8	0	8	100%	8	0	5	0	5	100%	5	0	13	0	13	100%	13
2	Apparel	2	0	0	0	0%	2	3	0	0	0	0%	3	5	0	0	0	0%	5
4	Baths, closets, sinks, and spittoons	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
5	Beds	3	0	0	0	0%	3	3	0	0	0	0%	3	6	0	0	0	0%	6
8	Bleaching and dyeing; fluid treatment and chemical modification of textiles and fibers	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
15	Brushing, scrubbing, and general cleaning	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
16	Miscellaneous hardware (e.g. bushing, carpet fastener, caster, door closer, panel hanger, attachable or adjunct handle, hinge, window sash balance, etc.)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
24	Buckles, buttons, clasps, etc.	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
29	Metal working	1	0	0	0	0%	1	4	0	0	0	0%	4	5	0	0	0	0%	5
36	Boots, shoes, and leggings	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
37	Excavating	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
38	Textiles: ironing or smoothing	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
42	Firearms	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
44	Fuel and related compositions	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
47	Plant husbandry	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4

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Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
51	Abrasive tool making process, material, or composition	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
52	Static structures (e.g. buildings)	0	0	0	0	0%	0	9	0	0	0	0%	9	9	0	0	0	0%	9
53	Package making	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
55	Gas separation	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
60	Power plants	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
66	Textiles: knitting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
73	Measuring and testing	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
75	Specialized metallurgical processes, compositions for use therein, consolidated metal powder compositions, and loose metal particulate mixtures	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
83	Cutting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
84	Music	1	0	0	0	0%	1	0	1	0	1	100%	1	1	1	0	1	50%	2
89	Ordnance	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
92	Expansible chamber devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
95	Gas separation: processes	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
99	Foods and beverages: apparatus	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
111	Planting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
114	Ships	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
119	Animal husbandry	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
123	Internal-combustion engines	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
124	Mechanical guns and projectors	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
128	Surgery	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
134	Cleaning and liquid contact with solids	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
135	Tent, canopy, umbrella, or cane	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
137	Fluid handling	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4

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Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
138	Pipes and tubular conduits	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
141	Fluent material handling, with receiver or receiver coacting means	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
148	Metal treatment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
156	Adhesive bonding and miscellaneous chemical manufacture	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
166	Wells	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
169	Fire extinguishers	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
174	Electricity: conductors and insulators	1	0	0	0	0%	1	3	0	0	0	0%	3	4	0	0	0	0%	4
180	Motor vehicles	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
187	Elevator, industrial lift truck, or stationary lift for vehicle	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
198	Conveyors: power-driven	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
206	Special receptacle or package	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
208	Mineral oils: processes and products	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
210	Liquid purification or separation	0	0	0	0	0%	0	5	0	0	0	0%	5	5	0	0	0	0%	5
211	Supports: racks	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
215	Bottles and jars	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
219	Electric heating	2	0	0	0	0%	2	2	0	0	0	0%	2	4	0	0	0	0%	4
222	Dispensing	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
229	Envelopes, wrappers, and paperboard boxes	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
235	Registers	4	4	1	5	56%	9	1	2	0	2	67%	3	5	6	1	7	58%	12
239	Fluid sprinkling, spraying, and diffusing	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
244	Aeronautics and astronautics	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
248	Supports	3	0	0	0	0%	3	2	0	0	0	0%	2	5	0	0	0	0%	5
249	Static molds	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1

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Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
250	Radiant energy	0	0	0	0	0%	0	0	1	0	1	100%	1	0	1	0	1	100%	1
251	Valves and valve actuation	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
257	Active solid-state devices (e.g. transistors, solid-state diodes)	5	0	0	0	0%	5	1	0	0	0	0%	1	6	0	0	0	0%	6
264	Plastic and nonmetallic article shaping or treating: processes	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
273	Amusement devices: games	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
280	Land vehicles	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
292	Closure fasteners	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
296	Land vehicles: bodies and tops	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
301	Land vehicles: wheels and axles	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
305	Wheel substitutes for land vehicles	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
313	Electric lamp and discharge devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
315	Electric lamp and discharge devices: systems	2	0	0	0	0%	2	1	0	0	0	0%	1	3	0	0	0	0%	3
318	Electricity: motive power systems	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
320	Electricity: battery or capacitor charging or discharging	0	0	0	0	0%	0	0	0	0	0	0%	0	0	0	0	0	0%	0
322	Electricity: single generator systems	0	0	0	0	0%	0	0	1	0	1	100%	1	0	1	0	1	100%	1
326	Electronic digital logic circuitry	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
327	Miscellaneous active electrical nonlinear devices, circuits, and systems	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
331	Oscillators	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
333	Wave transmission lines and networks	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
335	Electricity: magnetically operated switches, magnets, and electromagnets	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
336	Inductor devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
337	Electricity: electrothermally or thermally actuated switches	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
340	Communications: electrical	8	6	5	11	58%	19	3	3	0	3	50%	6	11	9	5	14	56%	25
341	Coded data generation or conversion	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
342	Communications: directive radio wave systems and devices (e.g. radar, radio navigation)	0	1	0	1	100%	1	0	0	0	0	0%	0	0	1	0	1	100%	1
343	Communications: radio wave antennas	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
345	Computer graphics processing and selective visual display systems	6	5	2	7	54%	13	2	0	0	0	0%	2	8	5	2	7	47%	15
348	Television	2	4	0	4	67%	6	0	1	0	1	100%	1	2	5	0	5	71%	7
349	Liquid crystal cells, elements and systems	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
351	Optics: eye examining, vision testing and correcting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
356	Optics: measuring and testing	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
358	Facsimile and static presentation processing	0	4	0	4	100%	4	0	0	0	0	0%	0	0	4	0	4	100%	4
359	Optical: systems and elements	3	0	0	0	0%	3	2	0	0	0	0%	2	5	0	0	0	0%	5
361	Electricity: electrical systems and devices	2	0	0	0	0%	2	7	0	0	0	0%	7	9	0	0	0	0%	9
362	Illumination	2	0	0	0	0%	2	5	0	0	0	0%	5	7	0	0	0	0%	7
363	Electric power conversion systems	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
365	Static information storage and retrieval	2	1	1	2	50%	4	0	0	0	0	0%	0	2	1	1	2	50%	4
366	Agitating	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
369	Dynamic information storage or retrieval	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
370	Multiplex communications	2	14	2	16	89%	18	0	4	0	4	100%	4	2	18	2	20	91%	22
375	Pulse or digital communications	2	8	0	8	80%	10	1	2	0	2	67%	3	3	10	0	10	77%	13
378	X-ray or gamma ray systems or devices	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
379	Telephonic communications	0	7	1	8	100%	8	0	5	0	5	100%	5	0	12	1	13	100%	13
380	Cryptography	0	1	0	1	100%	1	0	0	0	0	0%	0	0	1	0	1	100%	1
381	Electrical audio signal processing systems and devices	0	2	0	2	100%	2	0	0	0	0	0%	0	0	2	0	2	100%	2
382	Image analysis	0	4	0	4	100%	4	1	2	1	3	75%	4	1	6	1	7	88%	8
385	Optical waveguides	2	0	0	0	0%	2	0	0	0	0	0%	0	2	0	0	0	0%	2
386	Motion video signal processing for recording or reproducing	0	3	0	3	100%	3	0	2	0	2	100%	2	0	5	0	5	100%	5
398	Optical communications	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
399	Electrophotography	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
400	Typewriting machines	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
401	Coating implements with material supply	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
404	Road structure, process, or apparatus	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
405	Hydraulic and earth engineering	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
414	Material or article handling	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
415	Rotary kinetic fluid motors or pumps	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
416	Fluid reaction surfaces (i.e. impellers)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
417	Pumps	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
424	Drug, bio-affecting and body treating compositions	2	0	0	0	0%	2	23	0	0	0	0%	23	25	0	0	0	0%	25
425	Plastic article or earthenware shaping or treating: apparatus	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
426	Food or edible material: processes, compositions, and products	3	0	0	0	0%	3	5	0	0	0	0%	5	8	0	0	0	0%	8
427	Coating processes	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
428	Stock material or miscellaneous articles	5	0	0	0	0%	5	3	0	0	0	0%	3	8	0	0	0	0%	8
429	Chemistry: electrical current producing apparatus, product, and process	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
433	Dentistry	2	0	0	0	0%	2	1	0	0	0	0%	1	3	0	0	0	0%	3
434	Education and demonstration	1	2	0	2	67%	3	0	0	0	0	0%	0	1	2	0	2	67%	3
435	Chemistry: molecular biology and microbiology	3	0	0	0	0%	3	10	1	0	1	9%	11	13	1	0	1	7%	14
438	Semiconductor device manufacturing: process	4	0	0	0	0%	4	2	0	0	0	0%	2	6	0	0	0	0%	6
439	Electrical connectors	0	0	0	0	0%	0	6	0	0	0	0%	6	6	0	0	0	0%	6
441	Buoys, rafts, and aquatic devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
442	Fabric (woven, knitted, or nonwoven textile or cloth, etc.)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
446	Amusement devices: toys	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
455	Telecommunications	11	24	5	29	73%	40	6	5	0	5	45%	11	17	29	5	34	67%	51
463	Amusement devices: games	1	1	0	1	50%	2	1	0	0	0	0%	1	2	1	0	1	33%	3
472	Amusement devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
473	Games using tangible projectile	0	0	0	0	0%	0	1	2	1	3	75%	4	1	2	1	3	75%	4
482	Exercise devices	7	0	0	0	0%	7	2	0	0	0	0%	2	9	0	0	0	0%	9

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
493	Manufacturing container or tube from paper; or other manufacturing from a sheet or web	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
514	Drug, bio-affecting and body treating compositions	3	0	0	0	0%	3	32	0	0	0	0%	32	35	0	0	0	0%	35
524	Synthetic resins or natural rubbers—part of the class 520 series	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
536	Organic compounds—part of the class 532-570 series	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
546	Organic compounds—part of the class 532-570 series	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
560	Organic compounds—part of the class 532-570 series	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
562	Organic compounds—part of the class 532-570 series	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
600	Surgery	1	0	0	0	0%	1	2	3	0	3	60%	5	3	3	0	3	50%	6
601	Surgery: kinesitherapy	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
604	Surgery	1	0	0	0	0%	1	5	0	0	0	0%	5	6	0	0	0	0%	6
606	Surgery	7	0	0	0	0%	7	5	0	0	0	0%	5	12	0	0	0	0%	12
607	Surgery: light, thermal, and electrical application	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
623	Prosthesis (i.e. artificial body members), parts thereof, or aids and accessories therefor	5	0	0	0	0%	5	1	0	0	0	0%	1	6	0	0	0	0%	6
700	Data processing: generic control systems or specific applications	1	1	0	1	50%	2	0	1	0	1	100%	1	1	2	0	2	67%	3
701	Data processing: vehicles, navigation, and relative location	5	6	1	7	58%	12	0	2	0	2	100%	2	5	8	1	9	64%	14
702	Data processing: measuring, calibrating, or testing	0	2	0	2	100%	2	3	2	0	2	40%	5	3	4	0	4	57%	7

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
703	Data processing: structural design, modeling, simulation, and emulation	0	2	0	2	100%	2	0	2	0	2	100%	2	0	4	0	4	100%	4
704	Data processing: speech signal processing, linguistics, language translation, and audio compression/decompression	1	2	1	3	75%	4	0	0	0	0	0%	0	1	2	1	3	75%	4
705	Data processing: financial, business practice, management, or cost/price determination	1	19	0	19	95%	20	2	12	0	12	86%	14	3	31	0	31	91%	34
707	Data processing: database and file management or data structures	0	7	0	7	100%	7	0	3	0	3	100%	3	0	10	0	10	100%	10
709	Electrical computers and digital processing systems: multicomputer data transferring	1	16	0	16	94%	17	0	9	0	9	100%	9	1	25	0	25	96%	26
710	Electrical computers and digital data processing systems: input/output	3	5	0	5	63%	8	1	1	0	1	50%	2	4	6	0	6	60%	10
711	Electrical computers and digital processing systems: memory	0	3	0	3	100%	3	1	3	0	3	75%	4	1	6	0	6	86%	7
712	Electrical computers and digital processing systems: processing architectures and instruction processing (e.g. processors)	1	0	0	0	0%	1	0	1	0	1	100%	1	1	1	0	1	50%	2
713	Electrical computers and digital processing systems: support	1	8	0	8	89%	9	0	2	0	2	100%	2	1	10	0	10	91%	11
714	Error detection/correction and fault detection/recovery	1	3	0	3	75%	4	0	2	0	2	100%	2	1	5	0	5	83%	6

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
715	Data processing: presentation processing of document, operator interface processing, and screen saver display processing	0	17	1	18	100%	18	0	8	0	8	100%	8	0	25	1	26	100%	26
716	Computer-aided design and analysis of circuits and semiconductor masks	1	2	0	2	67%	3	0	0	0	0	0%	0	1	2	0	2	67%	3
717	Data processing: software development, installation, and management	0	1	0	1	100%	1	0	0	0	0	0%	0	0	1	0	1	100%	1
718	Electrical computers and digital processing systems: virtual machine task or process management or task management/control	0	1	0	1	100%	1	0	0	0	0	0%	0	0	1	0	1	100%	1
725	Interactive video distribution systems	1	8	0	8	89%	9	0	2	0	2	100%	2	1	10	0	10	91%	11
726	Information security	0	4	0	4	100%	4	0	1	0	1	100%	1	0	5	0	5	100%	5
D02	Apparel and haberdashery	3	0	0	0	0%	3	6	0	0	0	0%	6	9	0	0	0	0%	9
D03	Travel goods and personal belongings	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D04	Brushware	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D06	Furnishings	0	0	0	0	0%	0	7	0	0	0	0%	7	7	0	0	0	0%	7
D07	Equipment for preparing or serving food or drink not elsewhere specified	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
D08	Tools and hardware	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D10	Measuring, testing, or signalling instruments	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
D11	Jewelry, symbolic insignia, and ornaments	0	0	0	0	0%	0	5	0	0	0	0%	5	5	0	0	0	0%	5
D12	Transportation	2	0	0	0	0%	2	3	0	0	0	0%	3	5	0	0	0	0%	5
D13	Equipment for production, distribution, or transformation of energy	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2

RPX RATIONAL PATENT

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
D14	Recording, communication, or information retrieval equipment	1	0	0	0	0%	1	5	0	0	0	0%	5	6	0	0	0	0%	6
D15	Machines not elsewhere specified	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D21	Games, toys, and sports goods	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
D22	Arms, pyrotechnics, hunting and fishing equipment	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
D24	Medical and laboratory equipment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D25	Building units and construction elements	0	0	0	0	0%	0	7	0	0	0	0%	7	7	0	0	0	0%	7
D26	Lighting	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
D32	Washing, cleaning, or drying machine	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D34	Material or article handling equipment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
PLT	Plants	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1

APPENDIX E

The following table shows the covered business method categorization of patents in each randomly selected set (NPE, OpCo, and All) by USPC class codes. The numerically sorted class codes are shown in the left-most column. Each set has a column showing the total numbers of patents categorized as having None (N), All (A), Some (S) or at least one (A+S) claim subject to covered business method review, the percentage of patents in the class having at least one claim subject to covered business method review (A+S%), and the total number of patents evaluated in the class (Total).

		NPE						OpCo						All					
Class Codes	Class Code Titles	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
1	Undefined	8	0	0	0	0%	8	5	0	0	0	0%	5	13	0	0	0	0%	13
2	Apparel	2	0	0	0	0%	2	3	0	0	0	0%	3	5	0	0	0	0%	5
4	Baths, closets, sinks, and spittoons	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
5	Beds	3	0	0	0	0%	3	3	0	0	0	0%	3	6	0	0	0	0%	6
8	Bleaching and dyeing; fluid treatment and chemical modification of textiles and fibers	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
15	Brushing, scrubbing, and general cleaning	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
16	Miscellaneous hardware (e.g. bushing, carpet fastener, caster, door closer, panel hanger, attachable or adjunct handle, hinge, window sash balance, etc.)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
24	Buckles, buttons, clasps, etc.	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
29	Metal working	1	0	0	0	0%	1	4	0	0	0	0%	4	5	0	0	0	0%	5
36	Boots, shoes, and leggings	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
37	Excavating	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
38	Textiles: ironing or smoothing	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
42	Firearms	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
44	Fuel and related compositions	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
47	Plant husbandry	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
51	Abrasive tool making process, material, or composition	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
52	Static structures (e.g.	0	0	0	0	0%	0	9	0	0	0	0%	9	9	0	0	0	0%	9

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
	buildings)																		
53	Package making	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
55	Gas separation	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
60	Power plants	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
66	Textiles: knitting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
73	Measuring and testing	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
75	Specialized metallurgical processes, compositions for use therein, consolidated metal powder compositions, and loose metal particulate mixtures	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
83	Cutting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
84	Music	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
89	Ordnance	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
92	Expansible chamber devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
95	Gas separation: processes	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
99	Foods and beverages: apparatus	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
111	Planting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
114	Ships	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
119	Animal husbandry	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
123	Internal-combustion engines	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
124	Mechanical guns and projectors	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
128	Surgery	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
134	Cleaning and liquid contact with solids	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
135	Tent, canopy, umbrella, or cane	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
137	Fluid handling	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
138	Pipes and tubular conduits	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
141	Fluent material handling, with receiver or receiver coacting means	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
148	Metal treatment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
156	Adhesive bonding and miscellaneous chemical manufacture	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
166	Wells	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
169	Fire extinguishers	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
174	Electricity: conductors and insulators	1	0	0	0	0%	1	3	0	0	0	0%	3	4	0	0	0	0%	4
180	Motor vehicles	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
187	Elevator, industrial lift truck, or stationary lift for vehicle	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
198	Conveyors: power-driven	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
206	Special receptacle or package	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
208	Mineral oils: processes and products	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
210	Liquid purification or separation	0	0	0	0	0%	0	5	0	0	0	0%	5	5	0	0	0	0%	5
211	Supports: racks	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
215	Bottles and jars	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
219	Electric heating	2	0	0	0	0%	2	2	0	0	0	0%	2	4	0	0	0	0%	4
222	Dispensing	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
229	Envelopes, wrappers, and paperboard boxes	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
235	Registers	9	0	0	0	0%	9	3	0	0	0	0%	3	12	0	0	0	0%	12
239	Fluid sprinkling, spraying, and diffusing	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
244	Aeronautics and astronautics	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
248	Supports	3	0	0	0	0%	3	2	0	0	0	0%	2	5	0	0	0	0%	5
249	Static molds	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
250	Radiant energy	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
251	Valves and valve actuation	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
257	Active solid-state devices (e.g. transistors, solid-state diodes)	5	0	0	0	0%	5	1	0	0	0	0%	1	6	0	0	0	0%	6
264	Plastic and nonmetallic article shaping or treating: processes	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
273	Amusement devices: games	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
280	Land vehicles	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
292	Closure fasteners	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
296	Land vehicles: bodies and tops	0	0	0	0	0%	0	3	0	0	0	0%	3	3	0	0	0	0%	3
301	Land vehicles: wheels and axles	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
305	Wheel substitutes for land vehicles	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
313	Electric lamp and discharge devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
315	Electric lamp and discharge devices: systems	2	0	0	0	0%	2	1	0	0	0	0%	1	3	0	0	0	0%	3
318	Electricity: motive power systems	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
320	Electricity: battery or capacitor charging or discharging	0	0	0	0	0%	0	0	0	0	0	0%	0	0	0	0	0	0%	0
322	Electricity: single generator systems	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
326	Electronic digital logic circuitry	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
327	Miscellaneous active electrical nonlinear devices, circuits, and systems	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
331	Oscillators	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
333	Wave transmission lines and networks	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
335	Electricity: magnetically operated switches, magnets, and electromagnets	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
336	Inductor devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
337	Electricity: electrothermally or thermally actuated switches	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
340	Communications: electrical	18	1	0	1	5%	19	6	0	0	0	0%	6	24	1	0	1	4%	25
341	Coded data generation or conversion	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
342	Communications: directive	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
	radio wave systems and devices (e.g. radar, radio navigation)																		
343	Communications: radio wave antennas	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
345	Computer graphics processing and selective visual display systems	13	0	0	0	0%	13	2	0	0	0	0%	2	15	0	0	0	0%	15
348	Television	6	0	0	0	0%	6	1	0	0	0	0%	1	7	0	0	0	0%	7
349	Liquid crystal cells, elements and systems	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
351	Optics: eye examining, vision testing and correcting	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
356	Optics: measuring and testing	1	0	0	0	0%	1	2	0	0	0	0%	2	3	0	0	0	0%	3
358	Facsimile and static presentation processing	4	0	0	0	0%	4	0	0	0	0	0%	0	4	0	0	0	0%	4
359	Optical: systems and elements	3	0	0	0	0%	3	2	0	0	0	0%	2	5	0	0	0	0%	5
361	Electricity: electrical systems and devices	2	0	0	0	0%	2	7	0	0	0	0%	7	9	0	0	0	0%	9
362	Illumination	2	0	0	0	0%	2	5	0	0	0	0%	5	7	0	0	0	0%	7
363	Electric power conversion systems	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
365	Static information storage and retrieval	4	0	0	0	0%	4	0	0	0	0	0%	0	4	0	0	0	0%	4
366	Agitating	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
369	Dynamic information storage or retrieval	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
370	Multiplex communications	18	0	0	0	0%	18	4	0	0	0	0%	4	22	0	0	0	0%	22
375	Pulse or digital communications	10	0	0	0	0%	10	3	0	0	0	0%	3	13	0	0	0	0%	13
378	X-ray or gamma ray systems or devices	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
379	Telephonic communications	8	0	0	0	0%	8	5	0	0	0	0%	5	13	0	0	0	0%	13
380	Cryptography	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
381	Electrical audio signal	2	0	0	0	0%	2	0	0	0	0	0%	0	2	0	0	0	0%	2

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
	processing systems and devices																		
382	Image analysis	4	0	0	0	0%	4	4	0	0	0	0%	4	8	0	0	0	0%	8
385	Optical waveguides	2	0	0	0	0%	2	0	0	0	0	0%	0	2	0	0	0	0%	2
386	Motion video signal processing for recording or reproducing	3	0	0	0	0%	3	2	0	0	0	0%	2	5	0	0	0	0%	5
398	Optical communications	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
399	Electrophotography	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
400	Typewriting machines	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
401	Coating implements with material supply	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
404	Road structure, process, or apparatus	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
405	Hydraulic and earth engineering	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
414	Material or article handling	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
415	Rotary kinetic fluid motors or pumps	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
416	Fluid reaction surfaces (i.e. impellers)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
417	Pumps	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
424	Drug, bio-affecting and body treating compositions	2	0	0	0	0%	2	23	0	0	0	0%	23	25	0	0	0	0%	25
425	Plastic article or earthenware shaping or treating: apparatus	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
426	Food or edible material: processes, compositions, and products	3	0	0	0	0%	3	5	0	0	0	0%	5	8	0	0	0	0%	8
427	Coating processes	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
428	Stock material or miscellaneous articles	5	0	0	0	0%	5	3	0	0	0	0%	3	8	0	0	0	0%	8
429	Chemistry: electrical current producing apparatus, product, and process	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
433	Dentistry	2	0	0	0	0%	2	1	0	0	0	0%	1	3	0	0	0	0%	3

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
434	Education and demonstration	3	0	0	0	0%	3	0	0	0	0	0%	0	3	0	0	0	0%	3
435	Chemistry: molecular biology and microbiology	3	0	0	0	0%	3	11	0	0	0	0%	11	14	0	0	0	0%	14
438	Semiconductor device manufacturing: process	4	0	0	0	0%	4	2	0	0	0	0%	2	6	0	0	0	0%	6
439	Electrical connectors	0	0	0	0	0%	0	6	0	0	0	0%	6	6	0	0	0	0%	6
441	Buoys, rafts, and aquatic devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
442	Fabric (woven, knitted, or nonwoven textile or cloth, etc.)	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
446	Amusement devices: toys	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
455	Telecommunications	38	2	0	2	5%	40	11	0	0	0	0%	11	49	2	0	2	4%	51
463	Amusement devices: games	1	1	0	1	50%	2	1	0	0	0	0%	1	2	1	0	1	33%	3
472	Amusement devices	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
473	Games using tangible projectile	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
482	Exercise devices	7	0	0	0	0%	7	2	0	0	0	0%	2	9	0	0	0	0%	9
493	Manufacturing container or tube from paper; or other manufacturing from a sheet or web	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
514	Drug, bio-affecting and body treating compositions	3	0	0	0	0%	3	32	0	0	0	0%	32	35	0	0	0	0%	35
524	Synthetic resins or natural rubbers -- part of the class 520 series	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
536	Organic compounds -- part of the class 532-570 series	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
546	Organic compounds -- part of the class 532-570 series	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
560	Organic compounds -- part of the class 532-570 series	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
562	Organic compounds -- part of the class 532-570 series	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
600	Surgery	1	0	0	0	0%	1	5	0	0	0	0%	5	6	0	0	0	0%	6

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
601	Surgery: kinesitherapy	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
604	Surgery	1	0	0	0	0%	1	5	0	0	0	0%	5	6	0	0	0	0%	6
606	Surgery	7	0	0	0	0%	7	5	0	0	0	0%	5	12	0	0	0	0%	12
607	Surgery: light, thermal, and electrical application	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
623	Prosthesis (i.e. artificial body members), parts thereof, or aids and accessories therefor	5	0	0	0	0%	5	1	0	0	0	0%	1	6	0	0	0	0%	6
700	Data processing: generic control systems or specific applications	2	0	0	0	0%	2	1	0	0	0	0%	1	3	0	0	0	0%	3
701	Data processing: vehicles, navigation, and relative location	12	0	0	0	0%	12	2	0	0	0	0%	2	14	0	0	0	0%	14
702	Data processing: measuring, calibrating, or testing	2	0	0	0	0%	2	5	0	0	0	0%	5	7	0	0	0	0%	7
703	Data processing: structural design, modeling, simulation, and emulation	2	0	0	0	0%	2	2	0	0	0	0%	2	4	0	0	0	0%	4
704	Data processing: speech signal processing, linguistics, language translation, and audio compression/decompression	4	0	0	0	0%	4	0	0	0	0	0%	0	4	0	0	0	0%	4
705	Data processing: financial, business practice, management, or cost/price determination	10	8	2	10	50%	20	3	11	0	11	79%	14	13	19	2	21	62%	34
707	Data processing: database and file management or data structures	7	0	0	0	0%	7	3	0	0	0	0%	3	10	0	0	0	0%	10
709	Electrical computers and digital processing systems: multicomputer data transferring	17	0	0	0	0%	17	9	0	0	0	0%	9	26	0	0	0	0%	26

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
710	Electrical computers and digital data processing systems: input/output	8	0	0	0	0%	8	2	0	0	0	0%	2	10	0	0	0	0%	10
711	Electrical computers and digital processing systems: memory	3	0	0	0	0%	3	4	0	0	0	0%	4	7	0	0	0	0%	7
712	Electrical computers and digital processing systems: processing architectures and instruction processing (e.g. processors)	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
713	Electrical computers and digital processing systems: support	9	0	0	0	0%	9	2	0	0	0	0%	2	11	0	0	0	0%	11
714	Error detection/correction and fault detection/recovery	4	0	0	0	0%	4	2	0	0	0	0%	2	6	0	0	0	0%	6
715	Data processing: presentation processing of document, operator interface processing, and screen saver display processing	18	0	0	0	0%	18	8	0	0	0	0%	8	26	0	0	0	0%	26
716	Computer-aided design and analysis of circuits and semiconductor masks	3	0	0	0	0%	3	0	0	0	0	0%	0	3	0	0	0	0%	3
717	Data processing: software development, installation, and management	0	0	1	1	100%	1	0	0	0	0	0%	0	0	0	1	1	100%	1
718	Electrical computers and digital processing systems: virtual machine task or process management or task management/control	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
725	Interactive video distribution systems	9	0	0	0	0%	9	2	0	0	0	0%	2	11	0	0	0	0%	11
726	Information security	4	0	0	0	0%	4	1	0	0	0	0%	1	5	0	0	0	0%	5
D02	Apparel and haberdashery	3	0	0	0	0%	3	6	0	0	0	0%	6	9	0	0	0	0%	9

THE PREVALENCE OF SOFTWARE PATENT ASSERTION

Class Codes	Class Code Titles	NPE						OpCo						All					
		N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total	N	A	S	A+S	A+S%	Total
D03	Travel goods and personal belongings	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D04	Brushware	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D06	Furnishings	0	0	0	0	0%	0	7	0	0	0	0%	7	7	0	0	0	0%	7
D07	Equipment for preparing or serving food or drink not elsewhere specified	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
D08	Tools and hardware	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D10	Measuring, testing, or signalling instruments	1	0	0	0	0%	1	1	0	0	0	0%	1	2	0	0	0	0%	2
D11	Jewelry, symbolic insignia, and ornaments	0	0	0	0	0%	0	5	0	0	0	0%	5	5	0	0	0	0%	5
D12	Transportation	2	0	0	0	0%	2	3	0	0	0	0%	3	5	0	0	0	0%	5
D13	Equipment for production, distribution, or transformation of energy	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
D14	Recording, communication, or information retrieval equipment	1	0	0	0	0%	1	5	0	0	0	0%	5	6	0	0	0	0%	6
D15	Machines not elsewhere specified	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D21	Games, toys, and sports goods	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1
D22	Arms, pyrotechnics, hunting and fishing equipment	0	0	0	0	0%	0	4	0	0	0	0%	4	4	0	0	0	0%	4
D24	Medical and laboratory equipment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D25	Building units and construction elements	0	0	0	0	0%	0	7	0	0	0	0%	7	7	0	0	0	0%	7
D26	Lighting	0	0	0	0	0%	0	2	0	0	0	0%	2	2	0	0	0	0%	2
D32	Washing, cleaning, or drying machine	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
D34	Material or article handling equipment	0	0	0	0	0%	0	1	0	0	0	0%	1	1	0	0	0	0%	1
PLT	Plants	1	0	0	0	0%	1	0	0	0	0	0%	0	1	0	0	0	0%	1