From: Vanessa Pierce Rollins
Sent: Monday, April 15, 2013 2:45 PM
To: SoftwareRoundtable2013
Cc: Herbert C. Wamsley; Jessica Landacre; Laura Jacobius
Subject: IPO Comments

Please see the attached comments from IPO in response to the Federal Register notice on Software-Related Patents. Please let me know if you have any questions or concerns about this submission.

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April 15, 2013

Hon. Teresa Stanek Rea
Acting Under Secretary of Commerce for Intellectual Property
and Director of the U.S. Patent and Trademark Office
600 Dulany Street
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Alexandria, VA 22313

Submitted via: SoftwareRoundtable2013@uspto.gov

Re: IPO Response to the USPTO's "Request for Comments … for Partnership for Enhancement of Quality of Software-Related Patents 78 Fed. Reg. 292 (January 3, 2013)

Dear Director Rea:

Intellectual Property Owners Association (IPO) submits the following comments pursuant to the USPTO's "Request for Comments … for Partnership for Enhancement of Quality of Software-Related Patents 78 Fed. Reg. 292 (January 3, 2013) (the "Federal Register notice").

IPO is a trade association representing companies and individuals in all industries and fields of technology who own or are interested in intellectual property rights. IPO's membership includes more than 200 companies and more than 12,000 individuals who are involved in the association either through their companies or law firms or as IPO individual members.

IPO appreciates the opportunity to participate in the USPTO's recent "listening session" in New York City. At that event IPO stated:

- IPO commends and fully supports the USPTO's continuing efforts to enhance the overall quality of all patents including software-related patents by (1) providing internal training and guidance for patent-application examination, (2) promoting technical training by industry and academic experts, (3) hiring additional examiners, (4) strengthening guidelines, (5) implementing post-grant proceedings, (6) encouraging examiner interviews, and (7) enabling third party submissions of prior art. These initiatives, as well as the present "Software Partnership" activities, are vital to maintaining a strong patent system.

- IPO believes in the fair and equal treatment of all patent applications -- and the underlying technologies and innovations they cover -- to yield quality patents that promote the further progress of science and the useful arts.

Singling out a particular class of patent applications, software-related patent applications in this case, for disparate treatment seems unfair and unjustified.

- IPO believes that focus on providing the most relevant prior art and training on prior art searching to examiners, implementation of the USPTO's current examining guidelines and training initiatives, and adherence to other statutory requirements (e.g., enablement and claim definiteness) are key to enhancing overall patent quality.

  Particular focus could move away from over-emphasis on whether software-related claims are patent-eligible subject matter and move toward better evaluating whether those claims are novel and non-obvious and meet statutory requirements including enablement and definiteness.

- IPO supports the USPTO's commitment to enhancing the quality of software-related patents and establishing this partnership and open dialogue with the software community with a view toward identifying specific issues and seeking constructive input from all participants.

With these principles in mind, IPO presents the following comments on the topics presented in the Federal Register notice.

Topic 1: Establishing Clear Boundaries for Claims That Use Functional Language

1. When means-plus-function style claiming under 35 U.S.C. 112(f) is used in software-related claims, indefinite claims can be divided into two distinct groups: claims where the specification discloses no corresponding structure; and claims where the specification discloses structure but that structure is inadequate. In order to specify adequate structure and comply with 35 U.S.C. 112(b), an algorithm must be expressed in sufficient detail to provide means to accomplish the claimed function. In general, are the requirements of 35 U.S.C. 112(b) for providing corresponding structure to perform the claimed function typically being complied with by applicants and are such requirements being applied properly during examination? In particular:

   a) Do supporting disclosures adequately define any structure corresponding to the claimed function?

   b) If some structure is provided, what should constitute sufficient "structural" support?

   c) What level of detail of algorithm should be required to meet the sufficient structure requirement?

RESPONSE: Patent quality improves when (1) the scope of an issued claim is clear, and (2) the claim has been examined thoroughly, taking into account all statutory requirements for patentability. IPO commends the USPTO's efforts to investigate ways to clarify claim boundaries. The goal of "clear" boundaries, however, should not be confused with "narrow" boundaries. Any new rules designed to clarify claim scope should be crafted carefully to avoid unfairly burdening applicants by either unduly raising the cost of preparing and prosecuting the application, or unduly narrowing the scope of protection.

Generally speaking, some applications include disclosures that adequately define structure corresponding to functional language claimed using 35 U.S.C. § 112(f), and some do not. Disclosure of at least a software algorithm in the form of a flowchart or pseudo-code for the claimed function that shows *how* the claimed function is performed by a structure should be sufficient support in most cases for a claimed function that invokes § 112(f).

In a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, it is now well established that the disclosed structure is not the general purpose computer but rather the special purpose computer programmed to perform the disclosed algorithm. *See Aristocrat Techs. Australia Pty Ltd. v. Int'l Game Tech*., 521 F.3d 1328, 1333 (Fed. Cir. 2008); *Finisar Corp. v. DirecTV Group, Inc*., 523 F.3d 1323, 1340 (Fed. Cir. 2008); and *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). An algorithm is defined, for example, as "a finite sequence of steps for solving a logical or mathematical problem or performing a task." *Microsoft Computer Dictionary*, Microsoft Press, 5th edition, 2002. An applicant may express the algorithm in any understandable terms including as a mathematical formula, in prose, in a flow chart, or ''in any other manner that provides sufficient structure.'' *Finisar*, 523 F.3d at 1340; *see also Intel Corp. v. VIA Techs*., Inc., 319 F.3d 1357, 1366 (Fed. Cir. 2003); and *In re Dossel*, 115 F.3d 942, 946–47 (1997).

The level of detail of algorithm that should be required to meet the sufficient structure requirement will vary from case to case. For example, where implementation of a particular step in the process is not within the skill of the person of ordinary skill in the art, additional disclosure regarding the particular step may be required. A clear understanding of the scope of the claim in such cases might require disclosure of a specific software module (i.e., actual lines of code or pseudo-code). Still, sufficient structural support for performing the claimed function should not have to include any physical structure like hardware (i.e., processor, memory, etc.). Software has a structure all its own, and may be claimed. Object-oriented code, for example, has structure in the way that the classes are defined and data encapsulated. As another example, databases have structure in the database schemas, and the way that tables are linked.

The test for whether disclosed structure is sufficient for § 112(f) should be the same for all patent applications, i.e., whether the written description and drawings associate structure with the claimed function, and whether that structure is sufficient to perform the claimed function. The disclosed structure must be linked to the function recited in the claim and be detailed enough to form a reasonable range of equivalents. This requirement for § 112(f) claims is distinct from the enablement requirement. Once § 112(f) applies, "[t]he trade-off for allowing [functional § 112(f)] claiming is that the specification must contain sufficient descriptive text by which a

person of skill in the field of the invention would know and understand what structure corresponds to the means limitation." *Function Media,* at *4 (internal citations and punctuation omitted). And, "[t]he specification can express the algorithm in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure." *Id*.

The question is whether a person of skill in the art would recognize how the algorithm disclosed in the patent performs the "function" of the functional claim. "[T]he proper inquiry for purposes of section 112[(f)] analysis is to look at the *disclosure* of the patent and determine if one of skill in the art would have understood that *disclosure* to encompass software to perform the function and been able to implement such a program, not simply whether one of skill in the art would have been able to write such a software program." *Aristocrat Tech.* at 1337 (emphasis in original, internal citations and punctuation omitted). Stated another way, the issue under § 112(f) is not whether a person of skill in the art can implement some version of the claimed function (enablement), but instead whether one of skill in the art would understand the specification to describe an implementation of the claims. If such an implementation is present, the functional § 112(f) claim elements are limited to the scope of the implementation and its equivalents.

2. In software-related claims that do not invoke 35 U.S.C. 112(f) but do recite functional language, what would constitute sufficient definiteness under 35 U.S.C. 112(b) in order for the claim boundaries to be clear? In particular:

    a) Is it necessary for the claim element to also recite structure sufficiently specific for performing the function?

    b) If not, what structural disclosure is necessary in the specification to clearly link that structure to the recited function and to ensure that the bounds of the invention are sufficiently demarcated?

RESPONSE: If § 112(f) is not invoked, there should be no special rule for software-related inventions. The general test for claim definiteness under § 112(b) as interpreted by the Federal Circuit should be applied by the USPTO.

3. Should claims that recite a computer for performing certain functions or configured to perform certain functions be treated as invoking 35 U.S.C. 112(f) although the elements are not set forth in conventional means-plus-function format?

RESPONSE: Claims should not be analyzed according to bright line rules like that recited here. Rather claims should be analyzed on a case by case basis for whether they contain functional language and supporting structure. The test for whether §112(f) is invoked should be the same for all patent applications.

Topic 2: Future Discussion Topics for the Software Partnership

> The USPTO is seeking public input on topics related to enhancing the quality of software-related patents to be discussed at future Software Partnership events. The topics will be used in an effort to extend and expand the dialogue between the public and the USPTO regarding enhancing quality of software-related patents. … Input gathered from these events, may be used as the basis for internal training efforts and quality initiatives. One potential topic for future discussion is how determinations of obviousness or nonobviousness of software inventions can be improved. Another potential topic is how to provide the best prior art resources for examiners beyond the body of U.S. Patents and U.S. Patent Publications. Additional topics are welcomed.

RESPONSE: IPO supports the USPTO's interest in discussing additional topics concerning patent quality. In particular, IPO agrees that topics for future discussion could include (1) how determinations of obviousness or nonobviousness of software inventions can be improved, and (2) how to provide the best prior art resources for examiners beyond the body of U.S. Patents and U.S. Patent Publications.

An additional topic may include: How do we move the conversation from "is software patentable?" to "how can we improve the patent system to deal with issues that software-related patents and patent applications may present to the system?"

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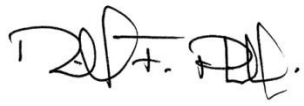
IPO thanks the USPTO for considering these comments and would welcome any further dialogue or opportunity to provide additional information to assist in the Office's efforts on this issue.

Sincerely,



Richard F. Phillips
President