



---

Portfolio Media, Inc. | 648 Broadway, Suite 200 | New York, NY 10012 | [www.law360.com](http://www.law360.com)  
Phone: +1 212 537 6331 | Fax: +1 212 537 6371 | [customerservice@portfoliomedia.com](mailto:customerservice@portfoliomedia.com)

---

## How To Preempt New PTO 101 Rejections

*Law360, New York (February 06, 2009)* -- As specialists in the patenting of software-related inventions, we have noticed empirically an aggressive new wave of rejections from the U.S. Patent and Trademark Office (PTO) for lack of statutory subject matter under 35 U.S.C. § 101.

This aggressiveness is exemplified by a recent decision of the Board of Patent Appeals and Interferences (Board), in which the Board went out of its way to devise a new ground of rejection under § 101 even though the appealed rejections were merely for obviousness under 35 U.S.C. § 103. See *Ex parte Koo*, Appeal No. 2008-1374 (BPAI Nov. 26, 2008).

This article discusses three types of common § 101 rejections for software claims and how to preempt them: (1) abstract ideas; (2) intended use; and (3) accidental coverage of now-banned signal claims.

### **Abstract Ideas**

A common § 101 rejection by the PTO is that a claimed invention is directed to an abstract idea, not limited to a machine or accomplishing a physical transformation. This machine-or-transformation test is the post-Bilski formulation of the PTO's rejection for not being useful, concrete, or tangible.

For example, in *Ex parte Koo*, the PTO rejected a method claim whose steps included evaluating, determining and reforming a query in a relational database management system. In that case, the claim read:

A method for optimizing a query in a relational database management system, the method comprising:

- evaluating the query to determine whether a sub-expression of the query is being joined to itself and whether a predicate of the query comprises an equality test between a same column of the sub-expression;

- determining whether a first row set producible from a first set of references of the query to the sub-expression is subsumed by a second row set producible from a second set of references of the query to the subexpression; and
- reforming the query to eliminate the joining of the sub-expression to itself based on evaluation of the query and determination of whether the first row set is subsumed by the second row set.

In *Ex parte Koo*, the PTO interpreted the “relational database management system” broadly enough that it “could be a software system, where the elements of claim 1 are implemented solely in software or algorithms.” *Ex parte Koo*, Slip op. at 15.

There are two possible approaches to discourage that type of interpretation for software method inventions.

First, the preamble of a claim can specify that the method is performed by a particular apparatus.

For example, the preamble in *Ex parte Koo* could have said the query was in a relational database management “apparatus” instead of a relational database management “system.”

The body of the claim would arguably incorporate this limitation because it refers to “the query.”

Second, the body of a claim can specify that one or more steps are performed by a particular machine. The step of “evaluating the query” in *Ex parte Koo* could instead recite “a computer evaluating the query.”

Similarly, for software system inventions, the machine-or-transformation test may be satisfied by specifying that a given software module is an apparatus.

For example, instead of reciting a “translation engine” element of a system, it is preferable to recite a “translation engine apparatus” or the like.

The specification should list examples of acceptable apparatuses, such as pre-programmed general purpose computers and special purpose electronic or optical devices.

## **Intended Use**

A long-time favorite of examiners, ignoring limitations as merely statements of “intended use” is more popular than ever in the § 101 context. Strategies for pre-empting this treatment vary according to claim type.

A standard approach for avoiding this result in apparatus or system claims is to recite in the body of a claim that an element is “adapted for” a given use.

Unfortunately, this is not always enough to avoid the “intended use” treatment for § 101 evaluation of software-related inventions. One way to handle this may be to include the use in the name of the element.

For example, “a machine language translator apparatus adapted to translate machine language” may be safer than “an apparatus adapted to translate machine language.”

Some examiners, perhaps incorrectly, would treat the latter formulation as merely stating an intended use to which any apparatus could be put.

Another way to handle this issue is to draft an element in means-plus-function format, such as “means for translating machine language.”

For software method claims, it will generally be required to recite affirmatively the intended use.

For example, a preamble statement of a “method of translating machine language” may be ignored unless the body of the claim actually includes a step of “translating machine language” using the method.

### **Accidental Coverage Of Now-Banned Signal Claims**

By now, the patent bar is well aware that signals per se are not considered statutory subject matter. Recently, the PTO has begun rejecting formerly acceptable claims not because they recite a signal, but because they might possibly encompass one.

Ever since *In re Beauregard*, claims to a computer readable medium bearing software instructions have been patentable. Now, the PTO often rejects such claims because they might read on unpatentable signals.

A quick fix is to revise *Beauregard* claims to specify that the computer readable medium “stores” the instructions. Since transient signals do not store instructions, the PTO generally accepts this fix to overcome the rejection.

To avoid having to make this type of amendment in response to a rejection, it is advisable to review all pending claims to see if this fix is necessary.

Otherwise, the *Festo* presumption will likely result in prosecution history estoppel and diminish the availability of the doctrine of equivalents.

A preliminary or voluntary amendment filed before the PTO issues a rejection for accidental coverage of now-banned signal claims may help avoid prosecution history estoppel.

When drafting patent applications for software, it may be worthwhile to define a computer readable medium as including various storage mediums (like disks or ROMs) and various non-storage mediums (like transient signals in free space).

That way, a claim using the term “stored” cannot cover impermissible signals, but signals will still be disclosed for what they are worth.

## **Conclusion**

Although we can expect the PTO to continue its aggressive manner of rejecting software-related patent applications for failure to claim statutory subject matter, careful claim drafting in the first instance will avoid some of the PTO objections and minimize costs.

If Festo is a concern, it might be worthwhile to review all pending but unexamined software claims for possible preliminary amendment.

--By James T. Carmichael, Miles & Stockbridge PC

*James Carmichael is a principal with Miles & Stockbridge in the firm's Tysons Corner office in Maclean, Va.*

*The opinions expressed and any legal positions asserted in the article are those of the author and do not necessarily reflect the opinions of Miles & Stockbridge, its other lawyers, or Portfolio Media, publisher of Law360.*