

**From:** Bill Roffmann  
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**Subject:** How to improve clarity of claim boundaries

Algorithms are the functional language of mathematics. Computer science is mathematical, ultimately deriving from transistor action simulating numerical base two.

This is clear. What remains to be clarified is the origin of specific and patentable mathematical algorithms.

Algorithms are neither trivial nor inexpensive. To be quite frank, it is hard work. Long hours of study are required to learn mathematics, further hours required in its practice.

Mathematics has a language, and it is functional. The algorithm can be derived using mathematical proofs and methods. The mathematical function is itself expressed in mathematical language, and is usually an expression of the underlying algorithm.

Mathematics being an expressive language as well as a functional language, publication of mathematical functions necessarily expresses the underlying algorithm. In order to protect published computer software, the origin of the algorithm must be determined, as it is the artistic expression of the mathematical function from which computer software derives.

Therefore it is my opinion that patent claim boundaries should respect the origin of the algorithm.

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