

Patenting computer-based inventions in UK – Clarity or confusion?

By Adarsh Ramanujan

Many believe that recent developments across the globe may have created some turmoil in terms of the law relating to patenting software-based inventions. This would probably be justified considering, for instance, the inconsistencies in the manner in which the Federal Circuit has considered this issue in the post-*Bilski* era. This short article, however, focuses on the other side of the Atlantic – the UK.

It would appear that the position of law in the UK, as evidenced in the *Aerotel*¹ and *Symbian*² line of cases, is distinct from the one enunciated by the Enlarged Board of Appeals in G0003/08 (2010).³ However, this article will instead focus on a recent decision on the subject-matter – the *Halliburton's* case⁴ and the principles laid down therein.

The *Halliburton's* case is particularly important for one specific point – the law laid down with regard to the exclusion of patentability for software-based inventions as being a mental process. In fact, subsequent to this decision, in October, 2011, the UK Intellectual Property Office has officially replaced paragraph 8 of the practice notice titled “Patents Act 1977: Patentability of Computer programs” (2008). The new notice actually provides a simple guideline – to follow the test laid down in the decision in *Halliburton's Applications*.⁵

The *Halliburton's* case related to four patent applications directed to improvements in the design of roller cone drill bits for drilling oil wells. The method claims at issue were all directed to simulating drill bit performance. The invention concerned the use of computer simulation to show the interaction of the drill bit with the material being drilled so that the design of the drill bit could be adjusted accordingly. This, obviously, saves significant amount of time, money and resources that would otherwise be used for extensive field testing. The claims themselves did not include any step of manufacturing a drill bit to the design. The method claims were rejected as being computer programs and rules or methods for performing mental acts. The appeal concerned this issue.

In an appeal to the High Court of Justice (Chancery Division), the decision was reversed and it was held that the inventions were patentable subject-matter. In reply to the contention that the method claim is excluded as being a method of performing mental acts, the Court held that what is excluded under the law are only purely mental processes, i.e., “*the exclusion will not apply if there are appropriate non-mental limitations in the claim.*”⁶ The exclusion, therefore, was held as not applicable to all processes that are *capable* of being implemented mentally; the moment the claim is limited in scope to a process actually being implemented in a computer, the claim cannot be excluded as a method for performing mental acts.

¹ [2007] RPC 7.

² [2008] EWCA Civ 1066.

³ Whether there is any real practical difference is a matter of debate and probably the subject-matter of a separate article.

⁴ [2011] EWHC 2508 (Pat).

⁵ See <http://www.ipso.gov.uk/p-pn-patentability>, last visited on October 9, 2011.

⁶ *Supra* note 4, at paragraph 63.

Effectively, as per this decision, all computer-implemented methods are *ipso facto* not acts of mental process.

Moving on further, to the argument that the claims are liable to be rejected as being directed to a computer program as such, the Court re-iterated the test laid down in the *Aerotel*⁷ and *Symbian*⁸ cases. The Court construed the claim and held that the contribution of the invention is a computer implemented method of designing drill bits and therefore, is “*more than a computer program as such*”.⁹ The Court noted that designing drill bits was a technical process that involved solving issues relating to the wear and tear, ability to cut rock and so on.¹⁰ Further adding to the technical nature of the contribution was the detailed way in which this method worked.¹¹ The following quote from the order appropriately sums up the position of law:¹²

“Thus when confronted by an invention which is implemented in computer software, the mere fact that it works that way does not normally answer the question of patentability. The question is decided by considering what task it is that the program (or the programmed computer) actually performs. A computer programmed to perform a task which makes a contribution to the art which is technical in nature, is a patentable invention and may be claimed as such. Indeed ...in those circumstances the patentee is perfectly entitled to claim the computer program itself.”

In explaining the rule relating to the exclusion of computer programs, the Court makes an interesting observation referring to previous cases where software-based inventions were held to be non-patentable:¹³

“The cases in which patents have been refused almost always involve the interplay between at least two exclusions.” (Emphasis Supplied)

The decision impliedly highlights three such categories: (a) where the task the computer performs is a business method¹⁴ or a mathematical method.¹⁵ In these situations, while recognizing that “*are self evidently technical in nature*”,¹⁶ the Court opined that the business method (and mathematical method?) exclusion is generic and hence, the law may not allow such claims by ignoring apparent technical effects; (b) the so-called “better computer” cases where the program solves a technical problem relating to the running of computers generally and does not have any external real world effect.¹⁷ The court notes that this is not covered under the exclusion;¹⁸ (c) where the task performed by the computer program represents a

⁷ *Supra* note 1.

⁸ *Supra* note 2.

⁹ *Supra* note 4, at paragraph 71.

¹⁰ *Supra* note 4, at paragraph 74.

¹¹ *Id.*

¹² *Supra* note 4, at paragraph 32.

¹³ *Supra* note 4, at paragraphs 33 and 39.

¹⁴ *Supra* note 4, at paragraph 35.

¹⁵ *Supra* note 4, at paragraph 39.

¹⁶ *Supra* note 4, at paragraph 35.

¹⁷ *Supra* note 4, at paragraph 37.

¹⁸ *Id.*

real world external effect.¹⁹ The court notes that in such cases, it is likely, but necessary that the required “technical effect” required under the *Aerotel* and *Symbian* line of cases is fulfilled.²⁰

The opinion rendered in the *Halliburton's* case seems to provide some clarity to the manner in which the principles derived from the *Aerotel* and *Symbian* cases are to be applied. However, a closer look will also reveal a certain amount of contradiction in the Court's approach. In dealing with the exclusion relating to mental processes, the Court very specifically holds that simple and appropriate claim limitations may be sufficient for non-applicability of the exclusion. However, in applying the exclusion for computer programs as such, the *Aerotel* approach whereby one is directed to “properly construe the claim”, “identify the contribution” and then decide whether this contribution is technical in nature or excluded, may involve ignoring actual claim limitations and instead, directing one's attention to the actual task performed / object achieved by the computer program.

Of course, it may not be fair to criticize the Court in the *Halliburton's* case considering that it was merely following precedents. Nonetheless, such conceptual contradictions only create more confusion in an already muddled area. All things considered, the manner in which the Court clarified the *Aerotel* approach does add a new twist to the tale!

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¹⁹ *Supra* note 4, at paragraph 38.

²⁰ *Id.*