

November 2008. I confirm that I have taken full account of Miss Harper's written submissions for this decision.

The Law and its interpretation

5 Section 1 of the Act sets out the conditions that an invention must satisfy in order for a patent to be granted. Section 1(2) declares that certain things are not inventions for the purposes of the Act. The relevant parts of section 1(2) read:

1 (2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of –

- (a) ... ;
- (b) ... ;
- (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;
- (d) ... ;

but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.

6 These provisions are designated in section 130(7) as being so framed as to have, as nearly as practicable, the same effect as the corresponding provisions of the European Patent Convention (EPC), i.e. Article 52. I must, therefore, also have regard to decisions of the Boards of Appeal of the European Patent Office (EPO) concerning article 52. However, I note that the decisions of the EPO Boards of Appeal do not bind me but that they have persuasive effect. In addition, I note that their persuasive effect must be considered carefully in view of the judgements of the Court of Appeal in *Aerotel/Macrossan*² and *Symbian* in which the Court of Appeal highlighted contradictions between the Boards' decisions and expressly refused to follow some of them.

7 In *Aerotel/Macrossan*, the Court of Appeal set out a four step test to be followed in deciding whether an invention is excluded:

- (1) properly construe the claim
- (2) identify the actual contribution
- (3) ask whether the identified contribution falls solely within the excluded subject matter
- (4) check whether the actual or alleged contribution is actually technical in nature.

8 In *Symbian* the court made it clear that in the course of making that inquiry, the question "is the contribution technical?" must be asked but that it does not matter whether it is asked at step 3 or 4.

9 That is the approach I will follow in deciding the present issue.

² *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application* [2007] R.P.C. 7

The application

10 The application is concerned with developing the functionality of a mobile phone, particularly the networking functionality – i.e. the network connections – of the phone.

11 According to the invention (which is illustrated in the following figure), software applications for mobile phones are developed by connecting a desktop PC to a mobile phone via a network connection.

12 The mobile phone (shown on the right-hand side of the figure) stores a number of modular software elements (referred to in the description as “pipe processors”). These modular software elements are, effectively, “building blocks” from which a software developer can develop software applications for the mobile phone.

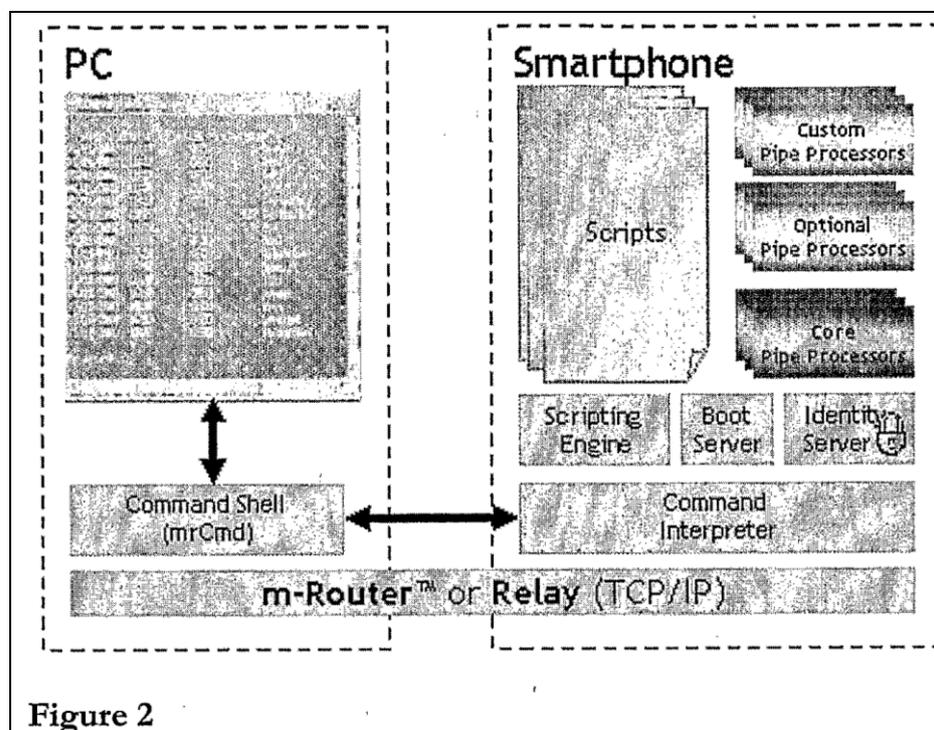


Figure 2

13 Although the modular software elements are stored on the phone, the software developer uses the desktop PC (shown on the left-hand side of figure 2) to direct the software development process. Individual modular software elements may be “called” – that is, caused to execute on the phone – by inputting commands at the desktop PC which are then transferred to the phone. The results of the executed commands are relayed back and displayed to the user at the PC, presumably to allow the developer to analyse them. In operation, the software developer uses the desktop PC to compose scripts that are transferred to the phone and which combine two or more of the software modules resident on the phone.

14 In doing this the invention seeks to overcome a number of problems

associated with prior development methods. In some prior art methods the functionality of the phone is modified using the handset. However the keyboard and screen on the handset are not really suitable for doing this. Furthermore handsets also lack the requisite processing power to make this efficient. The alternative prior method is to use a desktop pc running an emulator (or simulator) representing the phone and its software applications. That avoids the keyboard/screen and processing power problems but requires an additional testing stage using the phone as the emulator cannot replicate all the functionality of the phone, particularly its network connection functions.

- 15 Finally the invention is said to make it easier for non-experts to modify the functionality of the phone as the invention only requires knowledge of the high level script language rather than the low level application languages.

The claims

- 16 The claims before me were filed with Miss Harper's letter of 22 April 2008. The amended claims comprise four independent claims, numbered 1, 17, 18 and 19. These are directed to various aspects of the invention, namely the overall method for software development (claim 1) and the wireless mobile device (claim 17), the remote computer (claim 18) and the overall system (claim 19) having the functionality required to implement the invention. At the hearing Miss Harper agreed that the claims all stand or fall together and for the purposes of this decision I need only reproduce claim 1 which reads:

“1. A method of software application development for a wireless mobile device, the application being a networked application, in which the wireless mobile device is capable of communicating with a server over one or more types of network connection; the method comprising the steps of:

(a) a developer using an interface on a computer remote from the wireless mobile device to call, over one of the network connections, modular software elements resident on the wireless mobile device, the modular elements each (i) encapsulating functionality required by the wireless mobile device and (ii) capable of executing on the wireless mobile device under the control of an interpreter running on the device; and

(b) the developer causing modular software elements on the wireless mobile device to be combined using scripts composed on the computer and transferred to the device.”

- 17 If I find that claim 1 passes (or fails) the requirements of the Act then it follows that a similar finding must also apply (*mutatis mutandis*) to claims 17, 18 & 19.

Applying the excluded matter test

- 18 Step one of the test – construing the claims – does not present any particular problems in the present instance.
- 19 Step 2 – identifying the contribution – is often more problematic. At paragraph 43 of the *Aerotel/Macrossan* judgment, Jacob LJ described step 2 as being essentially a matter of determining what it is that the inventor has really

added to human knowledge and involves looking at the substance of the invention claimed, rather than the form of claim. He also accepted the submission of Comptroller's Counsel that the test "is an exercise in judgment probably involving the problem to be solved, how the invention works, what its advantages are". At the hearing Miss Harper impressed upon me that I should bear this in mind when identifying the contribution and in so doing cautioned me against construing the contribution too narrowly. I accept both these points.

20 As for the present case, at the hearing Miss Harper identified the contribution as:

"the use of signals from a remote computer to enable the development of application code dependent upon the characteristics of the wireless mobile device".

21 For his part, in the final examination report the examiner identifies the contribution as:

"an improved technique for developing application code for a mobile device, by means of interaction of the mobile device with a remote computer such that modular elements of code can be combined using scripts generated on the remote computer and transferred to the mobile device."

22 I see the contribution as being somewhat narrower than Miss Harper's formulation. Given the need to take account of the advantages conferred by the invention when identifying the contribution, I think it is significant that the software application that is being developed is a networked application and that the script composed by the software developer causes the modular elements on the mobile phone to be combined.

23 Furthermore, it is also worth me noting that Miss Harper accepted at the hearing that none of the hardware (the phone, the remote computer, the network, servers etc) is of itself new and that the contribution results from what this hardware is programmed to do.

24 In my view the contribution made by the invention is as follows:

a software implemented method for developing networked applications for a wireless mobile device, the software enabling a developer to use a computer remote from a wireless mobile device to call, over a network connection, modular software elements resident on the wireless mobile device and to combine and execute modular software elements resident on the device by using a script composed on the computer and transferred to the wireless mobile device.

25 Moving on to steps 3 and 4, what I must now do is decide whether that contribution falls solely in excluded matter. In doing that I will specifically address the question "is the contribution technical?" as *Symbian* dictates I must.

Program for a computer

26 The *Symbian* judgment presents a number of key points that are relevant to my decision on the present application.

27 Firstly, the Court confirmed that, when dealing with a patent application for an invention that is a computer program, the mere fact that an invention is (or uses) a computer program is not sufficient to decide exclusion – instead, the issue must be resolved by answering the question whether the computer program reveals a “technical” contribution to the state of the art (paragraph 48).

28 Secondly, it was also confirmed that the *Aerotel/Macrossan* test is a reformulation of the technical contribution approach and that, therefore, any application of the steps of the *Aerotel/Macrossan* test must be consistent with previous precedent regarding technical contribution (paragraphs 7 & 8).

29 Thirdly, in deciding whether an application reveals a “technical” contribution, Lord Neuberger noted that:

“... the most reliable guidance is to be found in the Board’s analysis in *Vicom*³ and the two *IBM Corp.* decisions⁴, and in what this court said in *Merrill Lynch*⁵ and *Gale*⁶. Those cases involve a consistent analysis, which should therefore be followed unless there is a very strong reason not to do so” (paragraph 49, emphasis and footnotes added).

30 The Court’s judgment in *Symbian* itself also gives further guidance on what constitutes a technical contribution. In finding that the *Symbian* invention did indeed make a technical contribution the court said

“... not only will a computer containing the instructions in question “be a better computer”, as in *Gale*, but, unlike in that case, it can also be said that the instructions “solve a ‘technical’ problem lying within the computer itself”. Indeed, the effect of the instant alleged invention is not merely within the computer programmed with the relevant instructions” (paragraph 54, emphasis added)

because

“The effect of the alleged invention in the present case improves the speed and the reliability of the functioning of the computer” (paragraph 55) and “there is more than just a “better program”, there is a faster and more reliable computer” (paragraph 56).

31 Thus, when the Court applied the third step of the *Aerotel/Macrossan* test it held that the computer program of *Symbian* did not fall solely within excluded matter

“because it has the knock-on effect of the computer working better as a

³ *Vicom/Computer-related invention* T0208/84, [1987] 2 EPOR 74

⁴ See *IBM Corp./Data Processor Network* (1988) T06/83, [1990] EPOR 91 and *IBM Corp./Computer-related invention* (1988) T115/85, [1990] EPOR 107

⁵ *Merrill Lynch’s Application* [1989] R.P.C. 561

⁶ *Gale’s Application* [1991] R.P.C. 305

matter of practical reality” (paragraph 59).

32 However, at paragraph 50 Lord Neuberger cautioned that:

“Each case must be determined by reference to its particular facts and features, bearing in mind the guidance given in the decisions mentioned in the previous paragraph”.

33 In my view, beyond the general guidance as to the sort of thing that does and does not confer a technical contribution, these precedents do not provide much in the way of direct assistance to me in deciding whether the present invention makes a technical contribution.

34 To my mind, what the present applicants have contributed is a way of controlling the interaction between a mobile phone and a remote computer in such a way that the functionality of the mobile can be changed whilst avoiding the technical problems inherent in the prior art ways of doing that – namely an inadequate interface on the phone or an imperfect emulator on the remote computer. In my view, the particular way that the present invention overcomes the technical problems inherent in the prior art provides a technical contribution. Thus whilst the invention may be implemented in software it provides a technical contribution such that it is more than a program for a computer as such.

35 For the sake of completeness, in addressing step 4 of the *Aerotel/Macrossan* test, I confirm that in my view the contribution made by the invention of claim 1 is indeed technical in nature.

36 As I have already stated, in my view all the independent claims stand or fall together. In that they make the same technical contribution as claim 1, I consider the inventions defined in the remaining independent claims also fall outside the computer program exclusion.

Mental Act

37 I feel I should also say something about the mental act objection that had been raised by the examiner prior to the hearing. The preamble to claim 1 reads “a method of software application development” which could, on a cursory read, be taken to be a method of writing a program which in many instances could constitute a method of performing a mental act. At the hearing I accepted that the invention was more than just a mental act on the basis of the case law on that point existing at that time, notably *Aerotel/Macrossan* where the court of Appeal expressed the admittedly obiter view that the mental act exclusion did not extend to acts done using computers. However when discussing *Fujitsu*⁷ in *Symbian*, the court expressed the similarly obiter view that the mental act exclusion might indeed extend to acts done on a computer. Thus I think it is fair to say that there remains some uncertainty on this point.

38 In the outturn I don’t think this uncertainty as to the scope of the mental act exclusion has any bearing on this case. The claims of the present application

⁷ *Fujitsu Limited’s Application* [1997] R.P.C. 608

specify the interaction between the remote computer and the mobile phone which is at the heart of the present invention and I do not see how, on any reasonable interpretation, that can be said to be a method of performing a mental act.

Conclusion

39 I have found that the invention defined in the claims of the present invention makes a technical contribution and is not excluded under section 1(2). As that was the only issue outstanding at the hearing the application would normally now be forwarded for grant. There is however one issue that has come to my attention that I think needs to be addressed before that can happen.

40 As originally filed, the claims and statements of invention all included the requirement that the modular software elements share a standard interface structure that allows them to be “called”. I can see nothing in the specification to suggest that this is an optional feature – indeed my understanding of the specification is that it is this feature that allows the modular elements to be combined readily. My prima facie view is that the specification as filed does not support the present claims without this feature being included and that the specification requires amendment in this respect.

41 I note that the (extended) compliance date for this application expired on 6 March 2009. However, the applicants are entitled to request an extension of two months to the compliance date by filing a form 52/77 in accordance with rule 108 any time up to and including 6 May 2009. The applicants should reply to this point and, if they wish to retain any option to amend the specification, request a further extension to the compliance period on or before 6 May 2009.

Appeal

42 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

A BARTLETT

Deputy Director acting for the Comptroller