

Patent law briefing

Software patent questions referred to the EPO's Enlarged Board of Appeal

by Richard Lawrence

The President of the EPO, Alison Brimelow, has referred questions relating to the patentability of software to the Enlarged Board of Appeal (EBA). The point of such a reference is to settle contentious points of law.

If the EBA accepts the reference, then it may rule on whether program product claims should be allowed by the EPO and also on what is required to pass the EPO's "technical character" test for an invention to be of a kind which can be patented.

The EBA does not have to accept the reference. It may not do so if it considers that these questions are clearly answered by existing Technical Board of Appeal decisions. If it does accept the reference, there is the potential for significant change in EPO practice depending on how the EBA rules.

In its original form, Article 52 of the European Patent Convention stated that *"European patents shall be granted for any inventions provided that they are new, involve an inventive step and are susceptible of industrial application."* It qualified this statement by providing a list of subject matter and activities which were not to be considered to be inventions under the EPC: these include scientific theories, mathematical methods, presentations of information and, perhaps most significantly, schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers. This is 'excluded subject matter' under the EPC - however, it is important to note that the patentability of such subject matter is excluded only to the extent *"to which a European patent application or European patent relates to such subject-matter or activities as such."*

In the EPC 2000 revision to the EPC, Article 52 was amended to state that inventions are patentable *"in all fields of technology"* for consistency with Article 27(1) of TRIPS, but without changing the list of subject matter and activities identified as excluded subject matter.

EPO case law has developed significantly from this beginning through judgements of the Technical Boards of Appeal, which take appeals from decisions from the Examining Divisions and Opposition Divisions of the EPO. In *T 208/84*

(*Vicom*) it was held that a claim for the digital processing of images according to a new algorithm was allowable because an image is a physical entity even when stored electronically, and because a claim directed to a technical process which is carried out under the control of a program cannot be regarded as a computer program as such. In *T 935/97 (IBM)* and *T 1173/97 (IBM)* it was held that claims to a computer program stored on a data carrier were patentable if the program comprised all the features of a patentable method. It was stated that it would be illogical *"to grant a patent for both a method and the apparatus adapted for carrying out the same method, but not for the computer program product, which comprises all the features enabling the implementation of the method and which, when loaded in a computer, is indeed able to carry out that method."* It is a consistent feature of EPO case law in general that a patentable invention must have technical character, although this is not defined in the EPC and the approach to determining whether technical character is present has changed over time.

The patentability of software has long been a politically-sensitive issue in Europe and elsewhere. The EU Commission proposed a Directive to harmonise the legal position for patentability of computer software within the EU. The proposed Directive was extensively amended by the European Parliament and eventually abandoned after heavy lobbying.

The case law in individual countries has been perceived to diverge from the EPO position, perhaps particularly in the UK after the decision of the Court of Appeal in *Aerotel/Macrossan* and the subsequent application of the *Aerotel/Macrossan* test by the UK Intellectual Property Office and the UK courts.

The EBA is the highest legal authority within the EPO. The President of the EPO is empowered to refer a point of law to the EBA when two Boards of Appeal have given divergent decisions on that question.

The questions

The President of the EPO submitted the following questions to the Chairman of the EBA in October 2008. The questions are discussed briefly below.

- **Question 1** *Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program?*

T 1173/97 (IBM), one of the landmark decisions accepting the patentability of claims to a storage medium with a program for executing a patentable method stored on it, is considered to diverge from *T 424/03 (Microsoft)*, a case in which the Board distinguished a method implemented in a computer system from a computer program itself, the program. The President considers that the effect of *T 424/03* is to render the meaning of “a program for a computer... as such” extremely narrow: only claims to “a computer program for X” would be excluded, so in any practical case, non-excluded claims could be drafted by appropriate choice of wording.

While this is a possible interpretation of the effect of *T 424/03*, it is not the universal view that that decision limits the scope of the exclusion in this way. The question appears to be inviting the EBA to affirm the reasoning of *T 1173/97*.

- **Question 2(a)** *Can a claim in the area of computer programs avoid exclusion under Art. 52(2)(c) and (3) merely by explicitly mentioning the use of a computer or a computer-readable data storage medium?*
- **Question 2(b)** *If Question 2(a) is answered in the negative, is a further technical effect necessary to avoid exclusion, said effect going beyond those effects inherent in the use of a computer or data storage medium to respectively execute or store a computer program?*

T 1173/97 introduces the idea of further technical effect, the headnote of the decision stating that “a computer program product is not excluded from patentability,,, if, when it is run on a computer, it produces a further technical effect which goes beyond the “normal” physical interactions between program (software) and computer (hardware). *T 258/03 (Hitachi)*, supported in *T 424/03* and elsewhere, makes a broader statement that any method involving technical means is an invention in the sense of Article 52, and hence potentially patentable.

This may be a more significant question than Question 1, in practice. The President argues that the approaches taken in *T 258/03* and *T 1173/97* are inconsistent, in that the result would be a different standard for method and program product claims: the method claim would not require a further technical effect to avoid the exclusion, whereas the program product claim would.

- **Question 3(a)** *Must a claimed feature cause a technical effect on a physical entity in the real world in order to contribute to the technical character of the claim?*

- **Question 3(b)** *If Question 3(a) is answered in the positive, is it sufficient that the physical entity be an unspecified computer?*
- **Question 3(c)** *If Question 3(a) is answered in the negative, can features contribute to the technical character of the claim if the only effects to which they contribute are independent of any particular hardware that may be used?*

This may be the most important set of questions, and has the potential to have a significant effect on EPO practice. The President argues that decisions such as *T 163/85 (BBC)* and *T 190/94 (Mitsubishi Electric)* imply that a technical effect on a physical entity in the real world is required. In the case of *T 163/85*, this is to a television signal which was held to be a physical reality which could be detected by technological means (and hence was not an abstract entity). In *T 190/94*, the claims are directed to a system for rotating an image, and as the actual parameters of the image rotation would be different from those achieved using the prior art method, there is a technical effect on a physical entity.

The President considers that decisions such as *T 424/03* and *T 125/01 (Werner Henze)* diverge from these earlier decisions. *T 424/03* uses functional data structures - clipboard formats - defined by their purpose to facilitate exchange of data between application programs. *T 125/01* is directed to program control of telecommunications apparatus, and requires use of a table in the control program which is searched when there is user input (such as a button press on a control panel) to determine the desired operating state.

The President states that for “*features related to computer programs whose effects are confined to the internal working of the computer, there is uncertainty about where the line is to be drawn between technical effects and effects lying solely in the field of programs for computers, in particular if the aspects relating to programming are claimed in any detail.*” The President seems to be urging that this line be drawn to exclude *T 424/03* and *T 125/01*, as she states that following these decisions, “*it would appear that an inventive step could be based on a programmer’s choice of elementary programming constructs ... which solely serve the efficient execution of the program or indeed simplify the programmer’s work ... it is therefore difficult to contemplate which aspects or effects of a computer program could fall within the exclusion.*”

The answers to be given to these questions have the potential to affect EPO case law and practice very significantly, particularly if the EBA considers that the reasoning in *T 424/03* and *T 125/01* is significantly at fault. The selection of cases chosen to justify the divergence is extremely surprising, as it excludes a number of better-known cases widely

referenced by Boards of Appeal. It is surprising also that the reference does not more clearly address one of the central issues in the English Court of Appeal decision *Symbian*, namely whether an invention directed to better operation of a general purpose computer through use of appropriate software is potentially patentable.

- **Question 4(a)** *Does the activity of programming a computer necessarily involve technical considerations?*
- **Question 4(b)** *If Question 4(a) is answered in the positive, do all features resulting from programming thus contribute to the technical character of a claim?*
- **Question 4(c)** *If Question 4(b) is answered in the negative, can features resulting from programming contribute to the technical character of a claim only when they contribute to a further technical effect when the program is executed?*

The President considers that *T 1177/97 (Systran)* suggests that programming is a technical activity as the “technical implementation” of the invention - involving translation between natural languages - involves programming a computer. In *T 172/03 (Ricoh)*, the person skilled in the art was defined to be a software project team consisting of programmers and addressing the technical problem of implementing a non-technical order management method in software. The President considers this to be inconsistent with cases such as *T 833/91 (IBM)*, *T 204/93 (AT&T)* and *T 769/92 (Sohei)*, which the President suggests all identify programming as a mental act of the programmer.

It is not clear that this question has any major consequences for application of Article 52 EPC, but it could have great practical importance in application of Article 56 EPC. If programming is considered entirely “non-technical”, considerations relating to programming cannot form part of an objective technical problem (as used in the problem and solution approach). This could have real practical significance if the approach in *T 641/00 (Comvik)* to examining for inventive step is extended by including all programming considerations as being in effect “already known” when considering the starting point for determining what objective technical problem exists.

It seems remarkable that this question - which bears entirely on the examination of inventive step - has been asked without raising the issue of assessment of inventive step following *T 641/00*. It is difficult to see how the EBA can begin to address these issues without considering the *Comvik* decision. This is most clearly the case for Question 4, but has application to Questions 2 and 3 also.

What happens next?

The EBA has identified this case as *G 3/08*, and has appointed a Board to consider the President’s questions. The first issue to be considered by the EBA is whether to accept the reference: it may elect not to do so if it considers that there is no point of law to be decided (this was done in *G 3/95*, for example). If the EBA does accept the reference, it is unlikely to make a decision for one or two years.

It is likely that there will be a number of *amicus* briefs filed - the EBA will announce provision for this in the Official Journal of the EPO in due course. It is unlikely that the practice of the Examining Divisions or the Technical Boards of Appeal will change while waiting for this reference to run its course, and it is unclear whether cases that are likely to turn on the Enlarged Board’s decision of these points of law will be suspended.

Conclusions

The President’s questions to the EBA raise a number of issues of law, and the result of this process is currently unclear. It seems unlikely that any liberalisation of EPO practice in the granting of patents for software-related inventions will result. If the EBA refuses to accept the reference, or chooses mainly to support the more recent decisions, there is unlikely to be any major change to EPO practice. If, however, the EBA follows the approach that the President appears to favour, then the Examining Divisions may reject many software-related cases that they would currently accept.

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