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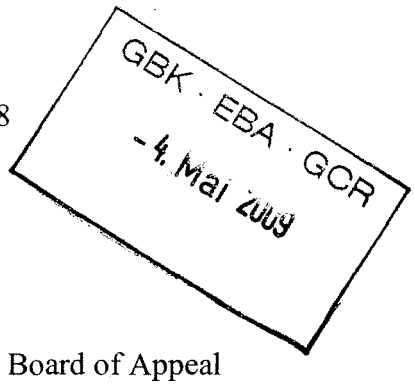

Our ref: 267/PMJ/G3/08

Your ref:

30 April 2009

Registry of the Enlarged Board of Appeal
for G3/08
European Patent Office
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80331 Munchen
Germany
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Dear Sirs

Case No. G3/08; Consultation on the pending questions concerning patentability of computer programs

Please find enclosed an amicus curiae brief concerning the above consultation which has been produced by the Intellectual Property Lawyers Association of the United Kingdom.

Yours faithfully

Bristows

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Intellectual Property Lawyers Association

Software Patents

Written submission to the Enlarged Board of Appeal

This note contains *amicus curiae* submissions to the Enlarged Board of Appeal of the European Patent Office on the subject of the EPO President's referral to the Enlarged Board of a series of questions concerning the patentability of software.

Enlarged Board of Appeal
European Patent Office
Erhardtstrasse 27
80331 MUNCHEN
Germany

Case **G3/08**: Referral under Art. 112(1)(b) EPC by the President of the EPO (Patentability of programs for computers) to the Enlarged Board of Appeal

The brief is provided by the UK's Intellectual Property Lawyers Association, which acts as a centralised voice for those law firms in England and Wales with significant IP practices who wished to lobby for improvements to the law and practice of intellectual property law. Some fifty firms are members of IPLA and their practices extend throughout England and Wales. The brief sets out some broad points of principle, before addressing the specific questions referred by the President of the EPO.

1. The desirability of clarity

The present position on the patentability of software across a number of European jurisdictions suffers from a lack of legal certainty and a lack of consistency. The referral presents the Enlarged Board with an opportunity to clarify the EPO approach to patentability and provide a basis for consistency throughout Europe. In the United Kingdom, while the desirability of consistency with the EPO position has been

universally acknowledged, the Courts have been unable to identify a settled EPO approach.

The UK Courts have indicated that they would follow a settled EPO approach on patentability. Notwithstanding any debate as to whether there is in fact, at present, a settled EPO approach, it would be beneficial for the Enlarged Board of Appeal to clarify the EPO approach to patentability. At the very least, this would provide a basis for achieving consistency in the UK and elsewhere.

It is arguable that the differences in the present approaches in the UK and the EPO are differences of form and not substance, in that both approaches should in theory lead to the same ultimate result. It would be beneficial in the present circumstances if, in addressing the referred questions, the Enlarged Board of Appeal clarified both the form and the substance of the EPO approach to patentability of software.

2. Computer implemented inventions

According to Article 52 of the European Patent Convention, an application is only excluded from patentability to the extent that it relates to an excluded category of subject-matter as such. This has the important consequence that patents may be obtained for subject-matter that incorporates elements in one or more excluded category, such as a program for a computer, provided there is something beyond the excluded subject-matter as such.

One reason for the disparity in application of the exclusion, both between jurisdictions and between tribunals in the same jurisdiction, is the lack of clarity as to its purpose or point. The other excluded categories form a relatively cohesive set of exclusions, with the common theme that none (business methods, aesthetic works, mathematical methods etc) can be readily seen as inventions capable of industrial application. The same is not, however, true of computer programs which are inherently technical in nature and arguably have all the hallmarks of a technical invention capable of industrial application. It is not surprising, therefore, that there is a body of opinion which holds that the original purpose of the exclusion was merely to prevent patent claims to particular lines of code (which would both be already protected by

copyright, and would not of themselves be any more capable of industrial application than any other literary work).

Understanding the purpose of the exclusion is of increasing importance as so much of modern technology is computer implemented. At the time the EPC was framed, computers and their programmes were very different in nature and prevalence to the situation today. As the EPO Facts and Figures review of 2008 states "*computer-implemented inventions feature in almost every field of technology these days*". In the words of the late Lord Justice Pumfrey:

> "*I am anxious that these exclusions are not given too wide a scope. All modern industry depends upon programmed computers, and one must be astute not to defeat patents on the ground that the subject matter is excluded under Article 52 unless the invention lies in excluded subject matter as such.*"
>
> *RIM v Inpro* [2006] EWHC 70

The trend for innovative technology to be computer-implemented is not new. A more recent phenomenon is the convergence of hardware and software, with innovation that would once have taken place in the hardware domain being achieved purely in software. A novel circuit design in hardware would traditionally be patentable, but this type of design work is now routinely achieved in software in, for example on an Erasable Programmable Read-Only Memory (EPROM).

3. Key issues underlying the referred questions

The following key issues underlie the questions referred to the Enlarged Board of Appeal:

(i) Is it the form or the substance of a claim that is of primary importance to patentability?

(ii) What distinguishes a patentable computer-implemented invention from a non-patentable 'computer program as such'?

(iii) If the distinction is some 'technical effect, then how do you distinguish a patentable technical effect from the inherent technical effects of running any computer program?

In answering these questions it is important to be clear on whether the context is the operation of the exclusion in Article 52 (patentability in the narrow sense) or the wider operation of Articles 52 to 57, including, inter alia, the exclusion, novelty and inventive step (patentability in the wider sense).

Considering these key questions from the perspective of patentability in the wider sense, the IPLA makes the following observations:

(i) The substance of the claim is paramount. The recitation of some known technical implementation means, for example, should not of itself lead to the grant of a patent.

(ii) A patentable invention must have technical character. A computer program, therefore, should certainly be considered as an invention if the program has the potential to bring about, when running on a computer, some novel and inventive technical effect.

(iii)A patentable invention requires an invention with both technical character and a further novel and inventive "technical effect". Whether or not that technical effect is sufficient for the purposes of patentability might turn upon how and where the effect manifests itself. This may be in a number of ways and on a number of levels. The debate is how far one can go down the list below and still find a patentable effect:

a. An effect entirely outside of the computer relating to an external process or a new way of interacting with the computer, for example, an improved production line system which involves a programmable controller; or

b. An effect outside of the computer, but manifested through its conventional peripheral devices (for example, an improved manner of interacting with printing or storage devices); or

c. An effect entirely inside the computer (for example, resulting in an increase in processing speed or reliability of the computer); or

d. An effect which is manifested solely within a particular computer program (producing, therefore, a better program rather than a better

computer or an effect which is dependent on the particular data being processed or the application used); or

e. An effect which is said to arise from the implementation of specific lines of code.

Discussion of the referred questions

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

This is not a contentious question; the answer must be no. Patentability is and should be a question of substance not form.

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?

While a claim may satisfy the prima facie test for technicality by reference to a computer or a computer-readable data storage medium, this should not, in itself, confer patentability in the wider sense. There must be a solution to an objective technical problem.

This is consistent with the substance of the present UK approach, but not the form. In the UK approach an attempt is made to identify the technical contribution before considering whether the exclusion in Article 52 applies. It would be helpful, in establishing a platform for consistency, for the Enlarged Board of Appeal to clarify both the form and the substance of the EPO approach.

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?

If patentability is considered in the wide rather than the narrow sense, ultimately a further technical effect must be necessary. A straightforward yes or no answer to this question would not be helpful as the scope of the requirement for that effect to go

"beyond those effects inherent in the use of a computer or data storage medium to respectively execute or store a computer program" is unclear.

This wording somewhat echoes the EPO Examination Guidelines which refer to the further technical effect going "beyond the normal physical interactions between the program and the computer".

As indicated above, a consideration of where the effect is manifested may assist in circumscribing what amounts to a patentable technical effect.

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?*

The answer to this depends upon what one means by a 'physical entity in the real world', and whether it includes the computer itself. If so, then the answer is yes, since purely abstract effects are not patentable (although as discussed below, effects on the computer itself may suffice).

3. (b) *If question 3(a) is answered in the positive, is it sufficient that the physical entity be an unspecified computer?*

The answer to this is also yes, since a patentable technical effect may be manifest within the computer itself, for example as an increase in the processing speed or an increase in reliability of the computer.

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?*

If one were to assume that it is not necessary to have an effect upon a physical entity, then the question is whether a hardware independent effect could suffice to confer patentability upon an invention. The answer to this would appear to be yes, in that an invention which made any form of processor operate more efficiently or reliably etc. could and should be patentable.

4. (a) *Does the activity of programming a computer necessarily involve technical considerations?*

The concepts of "technical character" and "technical effect" have specific meanings in the EPO. The scope of what is considered to be "technical character" in the EPO is not governed by what is considered to be 'technical' in normal parlance. It is a legal concept rather than a subject-specific term of art.

Programming a computer is an exercise having 'technical character'. Of itself, however, it will not necessarily give rise to a patentable invention. Something more may be needed. There is considerable argument, for example, as to whether a patentable technical effect can be based on an effect that is manifested solely within a particular computer program but has no wider effect, or even more so as to whether a technical effect arising from particular lines of code could ever be patentable. There must be a technical effect either within or outside the computer and it is open to debate as to whether that effect will suffice if it is limited to a particular program or particular lines of code per se. A novel and inventive technical effect on a 'higher' level (i.e. manifesting on the computer as a whole, or in some wider sense outside of the computer) should certainly be patentable.

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?*

This question is addressed above.

4. (c) *If question 4(a) 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 answer to this question is probably yes. Whilst an objective technical problem may be overcome by the manner in which the computer or computer device is programmed, a further technical effect may be required for patentability, in the wider sense, either within or outside the computer.

30 April 2009