To:
Registry of the Enlarged Board of Appeal
Case Number 03/08
European Patent Office
80298 Munich
GERMANY

BSA AMICUS BRIEF — 30 APRIL 2009

CASE G3/08
REFERRAL UNDER ARTICLE 112(1)(B) EPC BY THE PRESIDENT OF THE EPO TO THE ENLARGED BOARD OF APPEAL RE THE PATENTABILITY OF COMPUTER PROGRAMS

The Business Software Alliance (BSA) appreciates the opportunity to comment on the questions referred in Case G3/08. BSA brings together many of the world's leading technology providers; these innovators and the technologies that they develop will be directly affected by the Enlarged Board of Appeal's decision on the questions identified in this Referral.

Patents for computer implemented inventions play a critical role in promoting innovation. BSA thus encourages the Enlarged Board to maintain robust patent protection for such inventions while at the same time ensuring a consistent and coherent European approach to the requirements for patentability in this context.

Achieving such consistency from case to case by Technical Boards of Appeal may, on its face, appear difficult. As the President indicated in her opening statement in the summary of this Referral, the patentability of computer programs is a complex issue. As the UK Court of Appeal remarked recently,

> [i]t is not an easy matter to identify the precise ambit of the exclusion of "programs for computers…. as such" in art 52(2)(c) and (3). The difficulty is highlighted by a number of decisions of domestic courts and the [European Patent Office Technical Board of Appeal] . . . . [T]his last comment is not intended to convey criticism of either tribunal: the issue is inherently problematic, and inevitably will lead to a degree of inconsistency and uncertainty.[1]

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[1] *Symbian Ltd v Comptroller General of Patents* [2008] EWCA Civ 1066 at 18

It is our view that in fact there is greater consistency among the relevant decisions than has been suggested, and that variations in approach reflect a progression of case law. While the Boards' decisions have undoubtedly emphasised different aspects in assessing technical character, they are premised upon the same fundamental principles; the challenge in achieving consistency from case to case has more to do with the application of the standards to particular sets of facts than a fundamental defect or divergence in the standards themselves or the principles that underlie them.

As the Enlarged Board is well aware, VICOM (T 0208/84)[2] is the cornerstone of EPO practice in the area of computer implemented inventions, and the decision on which all other cases in this area build. As the Board held in VICOM, claimed subject matter relating to computer programs that used technical means or produced technical results – in other words, that was assessed to have a "technical character" – cannot be regarded as a computer program "as such." Subsequent cases – including the so-called "contribution" line of cases (T 121/85 et seq.); the "further technical effects" cases, such as IBM (T 1173/97)[3]; and more recent cases including HITACHI (T 0258/03)[4] and MICROSOFT (T 0424/03)[5] – have elaborated on the foundation established in VICOM in an effort to clarify and refine the assessment of technical character.

As a result of this progression, the criteria applied in the recent cases provide a predictable, consistent approach to assessing technical character. In contrast, the "contribution" and "further technical effects" criteria have proven difficult to apply consistently in practice and – in our view – provide much less certainty to patent applicants and the public. Notably, the "technical means," "further technical effects," and "contribution" approaches all involve the same basic criteria as the approach in HITACHI and, as a result, do not diverge significantly in terms of the outcomes (i.e. what is patentable and what is not) they produce.

We defer to the Enlarged Board on the question of admissibility to make this determination in accordance with EPC Article 112(b). How the Enlarged Board chooses to address the matter will have an impact on the practice of the EPO, national administrations and courts that apply the EPC, and will affect European innovation in the field of computer-implemented inventions as a whole, however; accordingly, we recommend a cautious approach to the introduction of any changes to the existing framework.

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[2] *VICOM/Computer-related invention* Decision T 0208/84 [1987] OJ EPO 14, [1987] 2 EPOR 74

[3] *Computer Program Product/IBM* Decision T 1173/97 [1999] OJ EPO 609

[4] *HITACHI/Auction method* Decision T 0258/03 (21 April 2004, unreported)

[5] *MICROSOFT/Data transfer with expanded clipboard formats* Decision T 0424/03 (23 February 2006, unreported)

Question 1

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

This question focuses on the category of the claim and how it is formulated. BSA does not believe, however, that the application of the exclusion in Article 52(2)(c) and 52(3) should turn on the form of the claim. In our view, any approach that elevates form over substance in that manner would be inappropriate.

The meaning of the claim itself, rather than the use of specific phrases or terms (such as "computer program" or "computer program as such"), must determine how the exclusion applies. As we noted briefly above, and explain in more detail in response to question 2, in a line of seminal decisions starting in 1987 with VICOM,[6] the Boards have determined that although programs for computers comprised an excluded category under Article 52(2), if claimed subject matter has a technical character, the claim should not be excluded from patentability. Case law of the Boards has evolved in attempting to establish a workable approach to determining how to assess "technical character," illustrating the central role this concept plays to the applicability of the exclusion.

BSA's position, therefore, is that the form of the claim should not determine the outcome of the inquiry under Articles 52(2)(c) and (3) EPC. The key factor, in line with Article 52(1) EPC, the Boards' own decisions, and Article 27(1) TRIPS, is to determine the meaning of the claim and whether the claimed invention has technical character.

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?

No. Substance controls whether a given claimed invention avoids exclusion under Art. 52(2)(c) and (3) – and not whether a claim "merely" mentions use of a computer or a computer-readable data storage medium.

In VICOM, the Board established that claimed subject matter relating to computer programs "as such" was not excluded from patent protection if it had technical character, which could be evident from the program producing technical results or

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[6] *VICOM/Computer-related invention, supra* n.2, *KOCH & STERZEL/X-ray method for optimum exposure* Decision T 0026/86 [1988] OJ EPO 19, *IBM/Text processing* Decision T 0115/85 [1990] OJ EPO 30, and *IBM/Data processor network* Decision T 0006/83 [1990] OJ EPO 5

using technical means.[7] The EPO has developed its approach to establishing technical character in several subsequent decisions.

As described above, as part of this progression, Boards initially inquired whether claimed subject matter (comprising both technical and non-technical features) provided a technical contribution in a field not excluded from patentability.[8] This "contribution approach" has involved considering whether the claimed subject matter solves a technical problem.

The Board built upon this approach in the later IBM decisions,[9] in which it held that a program is not excluded from patentability if, when run on a computer, it produces a "further technical effect" that goes beyond the normal physical interactions between a program and a computer.[10] It should also be noted that the Board further stated that it was "of the opinion that with regard to the exclusions under Article 52(2) and (3) EPC, it does not make any difference whether a computer program is claimed by itself or as a record on a carrier."[11]

In more recent decisions, including HITACHI,[12] the Board appears to have adopted a more structured and clear approach to analyzing subject matter for the purposes of applying Article 52 by transferring the analysis to the inventive step inquiry. Cases that generally follow this approach nevertheless squarely require the solution of the invention to have technical character. The Board has held that if an invention uses technical means[13] such means can be the basis for concluding that the invention has technical character.[14]

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[7] *See VICOM, supra* n.2 at 5.

[8] *See, for example, Text processing/IBM* Decision T 38/86 [1990] OJ EPO 384

[9] *Computer Program Product/IBM, supra* n.3 and *IBM/Computer Program Product II* Decision T 0935/97 (4 February 1999, unreported)

[10] As the Board explained in *Computer Program Product/IBM, id.* at 6,4, "Where said further effects [that derive from the execution of instructions given by the computer program] have a technical character or where they cause the software to solve a technical problem, an invention which brings about such an effect may be considered an invention, which can, in principle, be the subject-matter of a patent."

[11] *Id.* at 13, following *Colour television signal/BBC* Decision T 163/85, OJ 1990, 379

[12] *PARTNERSHIP/Controlling pension benefits system* Decision T 0931/95 (8 September 2000, unreported), *HITACHI/Auction method, supra* n.4, and *MICROSOFT/Data transfer with expanded clipboard formats, supra* n.5

[13] *HITACHI/Auction method, supra* n.4 at 3.7.

[14] *See, for example, MICROSOFT/Data transfer, supra* n.5 at 5.3:

> Claim 5 is directed to a computer-readable medium having computer-executable instructions
> (i.e. a computer program) on it to cause the computer system to perform the claimed method.

(continued…)

In sum, although Boards have developed various approaches for establishing technical character, these inquiries are related to one another, employ the same or similar criteria, and typically produce equivalent results with respect to ultimate patentability (i.e., whether a patent will ultimately be granted).

(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?

As discussed above, the "further technical effect" test established in the IBM cases is one approach that the Board has established to determine technical character. However, to avoid exclusion, it is technical character that is needed – whether assessed through the criteria of further technical effect or otherwise.

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?

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

(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?

The references to "a claimed feature" and "a physical entity in the real world" suggest that the question is founded upon two misconceptions: First, that the internal operations of a computer somehow do not occur in the "real world;" and second, that each feature or element of claimed subject matter must have an independent technical effect in order to contribute to technical character. Basing subject-matter eligibility for patentability on these misconceived notions could generate confusion and uncertainty.

The subject matter of claim 5 has technical character since it relates to a computer-readable medium, i.e. a technical product involving a carrier (see decision T 258/03 - Auction method/Hitachi . . .). Moreover, the computer executable instructions have the potential of achieving the above-mentioned further technical effect of enhancing the internal operation of the computer, which goes beyond the elementary interaction of any hardware and software of data processing (see T 1173/97 - Computer Program Product/IBM . . .). The computer program recorded on the medium is therefore not considered to be a computer program as such, and thus also contributes to the technical character of the claimed subject matter.

Regarding the "real world" point, the Referral mentions MICROSOFT[15] as being a case that did not require a technical effect on a physical entity in the real world. However, it is possible to view this case otherwise; the Technical Board's decision, for example, states that "[t]he claimed steps thus provide a general purpose computer with a further functionality: the computer assists the user in transferring non-file data into files." This language arguably admits an effect on a physical entity in the real world: through such processing, the user has achieved a useful end in the real world.

The VICOM decision may provide further insight into understanding this "real world" point. The Board distinguished abstract concepts (such as mathematical methods), which are not eligible for patent protection, from methods that are used in a technical process (that is carried out on a physical entity by some technical means that implements the method) and result in a technical effect, which are entitled to patent protection. The Board was of the opinion that a claim directed to a technical process that is carried out under the control of a program (implemented in hardware or in software), could not be regarded as relating to a computer program "as such." VICOM's concern with whether the invention produced a technical effect on a physical entity in the real world stemmed from the need to ensure that a mathematical method or mere abstraction would not be patented. Under any standard of patentability, it is important that this distinction continue to be made, so that mere mathematical methods and abstract concepts cannot be patented standing alone. However, once such methods are embodied in a practical, real world application, the claimed subject matter is no longer objectionably abstract, and – as held in VICOM – cannot be considered to comprise a computer program "as such." However, enunciating an independent requirement that a technical effect be performed on a physical entity in the "real world" may lead to ambiguity and a standard that is ultimately unworkable.[16]

The focus on whether a claimed feature must cause a technical effect appears to be similarly misguided – the Board established in one of its early decisions in this field that the character of the claimed subject matter must be assessed by considering the invention as a whole.[17] There is no requirement that each feature or element of the claimed subject matter have an independent technical effect in order to contribute to technical character.

Question 4

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[15] *MICROSOFT/Data transfer with expanded clipboard formats, supra* n.5

[16] *VICOM* (at 5) signaled the potential ambiguity of such a standard when it stated that the physical entity upon which the process is carried out "may be a material object but equally an image stored as an electric signal."

[17] *See KOCH & STERZEL/X-ray method for optimum exposure, supra* n.6 at 3.4

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

(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?

(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 Referral does not define the term "programming", nor does it make clear what is meant by the term "technical considerations." Generally speaking, however, programming a computer necessarily does involve technical considerations. This does not automatically mean, however, that all features resulting from programming a computer contribute to a claim's technical character, nor does it mean that the invention that may result from such programming is necessarily patentable. The assessment of technical character (and of overall patentability) requires a broader inquiry.

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