Dear Sirs

Re: 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.

In response to the announcement in the OJ EPO, 1/2009 pp32-33, the following observations are submitted in accordance with Article 10 of the Rules of Procedure of the Enlarged Board of Appeal (OJ EPO 2007, 303 ff).

It is my personal view that the referral is wholly inadmissible, for the simple reason that the President has failed to show that two Boards of Appeal have given different decisions on any of the questions posed. Whether the questions raise fundamental issues regarding the patentability of computer programs or not is beside the point, since the limitations of Article 112 are quite clear.

Article 112(1)(b) states that "the President of the European Patent Office may refer a point of law to the Enlarged Board of Appeal where two Boards of Appeal have given different decisions on that question".

As will become clear from the following analysis, the questions posed by the President either cannot realistically result in different answers when considering the cases pointed out in the Referral itself or are irrelevant due to any alleged divergence of case law being instead a development of a line of reasoning that is now established and is not contradictory.

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

Allegedly diverging decisions: T 1173/97 & T 424/03.

According to the President, these decisions are diverging because, while T 424/03 placed emphasis on the way a computer program was claimed, T 1173/97 placed emphasis on the function of the computer program. This argument is quite clearly wrong from a basic reading of these decisions. Not only does T 424/03 expressly approve the previous decision of T 1173/97 (and so cannot therefore be said to be in conflict with it), but the emphasis on the way the program was claimed in T 424/03, i.e. in the form of a program on a carrier, was only in respect of overcoming the 'technical character' hurdle of Article 52(2) EPC specified by T 258/03 (Auction Method/Hitachi), which is not mentioned in this part of the referral. This is clear from point 5.3 of the reasons in T 424/03:
"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. 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 cited above). 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; OJ EPO 1999, 609). 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."

There is therefore no divergence in the approach taken in T 424/03 with respect to the way in which computer programs can be validly claimed. T 1173/97 further clarifies this at point 13:

"Finally, as has become clear from the above, the Board notes that it does not agree with the interpretation by the examining division of Article 52(2) and (3) EPC with reference to the Guidelines, C-IV, 2.3 (page 38 of the December 1994 edition) from which they concluded that a computer program claimed by itself or as a record on a carrier is not patentable. In the view of the Board, a computer program claimed by itself is not excluded from patentability if the program, when running on a computer or loaded into a computer, brings about, or is capable of bringing about, a technical effect which goes beyond the "normal" physical interactions between the program (software) and the computer (hardware) on which it is run. "Running on a computer" means that the system comprising the computer program plus the computer carries out a method (or process) which may be of the kind according to claim 1. "Loaded into a computer" means that the computer programmed in this way is capable of or adapted to carrying out a method which may be of the kind according to claim 1 and thus constitutes a system (or device or apparatus) which may be of the kind according to claim 14. Furthermore, the Board is 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 (following decision T 163/85, OJ 1990, 379, "Colour television signal/BBC", as cited above)." (emphasis added)

The answer to question 1, which can be determined from either of the cited decisions, is neither yes nor no but, as is evident from the above extract, that it does not matter what form the computer program is claimed, provided the program has the potential for causing a 'further technical effect', as defined in T 1173/97.

There is no divergence in the cited decisions, and question 1 is therefore inadmissible.

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?
(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?

Alleged diverging decisions: T 1173/97 & T 258/03
The answer to 2(a), relying on the reasoning of either decision is yes, but only to the extent that the Article 52(2) 'technical character' test is passed by having a physical article in the claim or referring to a physical process (see, for example, T 258/03, which refers to a pen and paper passing such a test). The test for patentability is, according to the established case law of the Boards of Appeal, properly assessed under Article 56 EPC, in which features of the claimed invention that do not contribute to the technical character of the invention are not considered as part of the solution to the technical problem (for example, as defined in T 641/00). Otherwise, the simple, but necessarily incomplete, answer is no.

Question 2(b) is therefore incorrectly posed, since 2(a) cannot be answered with a simple yes or no. In any case, however, it is established case law of the Boards of Appeal, which both the cited decisions follow, that a "further technical effect" is always necessary to avoid exclusion. T 1173/97 puts this in the following way:

"In the view of the Board, a computer program claimed by itself is not excluded from patentability if the program, when running on a computer or loaded into a computer, brings about, or is capable of bringing about, a technical effect which goes beyond the 'normal' physical interactions between the program (software) and the computer (hardware) on which it is run" (point 13 of the reasons)

The reasoning in T 258/03 is entirely consistent with this reasoning. When considering whether the alleged invention in T 258/03 (being a modified Dutch auction run on a conventional computerised system) was patentable, the Board stated the following:

"In the Board's view, however, this solution does not contribute to a technical character and cannot therefore be taken into account for assessing inventive step since it concerns the rules of the auction, ie it is not a technical solution to the delay problem described (and solved by technical means) in documents D2 and D6, but a solution entirely based on modifications to the auction method. Method steps consisting of modifications to a business scheme and aimed at circumventing a technical problem rather than solving it by technical means cannot contribute to the technical character of the subject-matter claimed." (point 5.7 of the reasons)

It cannot therefore be said that the answers to questions 2(a) and (b) would be answered any differently from the reasoning expressed in T 1173/97 or T 258/03. These questions are therefore inadmissible.

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?

Alleged diverging decisions: T 163/85 & T 190/94 cf T 424/03 & T 125/01.

The simple answer to question 3(a) is, of course, no: a claimed feature does not need to cause a technical effect on a physical entity in the 'real world' in order to contribute to the technical character of the claim. As an aside, however, the President fails to define what the 'real world' actually is, which tends towards confusion of any argument that might be discernable behind the questions posed. I personally fail to see how the operation of a computer can be seen as falling outside any sensible definition of the real world. Computers
do not operate in some imaginary reality, but are physical articles in which hardware operates on instructions from software.

It has been long established in the case law of the Boards of Appeal that claimed features do not need to cause an actual effect on physical entities, as exemplified by the line of decisions following the landmark ruling in T 208/84, which is conspicuously absent from the President's argument. The above cited decisions all correspond with the reasoning of T 208/84, which may in particular be exemplified by the following extracts:

"The Board is of the opinion that a claim directed to a technical process which process is carried out under the control of a program (be this implemented in hardware or in software), cannot be regarded as relating to a computer program as such within the meaning of Article 52(3) EPC, as it is the application of the program for determining the sequence of steps in the process for which in effect protection is sought. Consequently, such a claim is allowable under Article 52(2)(c) and (3) EPC." (point 12 of the reasons)

"Generally speaking, an invention which would be patentable in accordance with conventional patentability criteria should not be excluded from protection by the mere fact that for its implementation modern technical means in the form of a computer program are used. Decisive is what technical contribution the invention as defined in the claim when considered as a whole makes to the known art." (point 16 of the reasons)

The various cited decisions have differing outcomes from each other only as a result of the particular claimed subject matter. Claims directed to methods of broadcasting signals fall to be considered in quite different ways to claims directed to methods of enhancing digital images or operating X-ray machines.

Regarding part (c) of the question, the decision of T 208/84 provides the answer, which is of course yes: it does not matter whether the implementation is on a 'general purpose' computer, provided the effect provided goes beyond the normal interactions between software and hardware. In the case of T 208/84, this effect was, among other things, an improvement in the efficiency of enhancing digital images. This method could be carried out on a general purpose computer available at the time the invention was made, and was not specific to any particular hardware implementation. The President has failed to show that any of the cited decisions would arrive at any conclusion different from this.

Questions 3(a)-(c) are therefore also inadmissible.

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?

Alleged diverging decisions: T 1173/97 & T 172/03 cf T 833/91, T 204/93 & T 769/92

The simple answer to question 4(a) is, in light of T 258/03, yes - 'technical character', as defined by T 258/03, can involve something as simple as pencil and paper. Programming involves at least this (and typically involves the use of a computer), so is therefore inherently technical. This does not, however, mean that the result of the program is patentable. As pointed out in T 1173/97, along with other decisions following this line of reasoning, a further
technical effect is required for a computer-implemented invention to be patentable, i.e. the implementation of the computer program must provide a technical solution to a technical problem, in order to demonstrate an inventive step according to Article 56 EPC. This has already been discussed above.

The three decisions cited to allege a divergence notably all significantly pre-date the landmark decision in T 1173/97 (and T 935/97, not cited by the President). The line of reasoning in these previous decisions, which follow the 'technical contribution' approach, is not, to my knowledge, followed in any decisions subsequent to T 1173/97. It cannot therefore be honestly argued that this represents any kind of divergence. Rather, the more recent cited decisions represent developments of lines of reasoning in the case law, which allows revised interpretation of the EPC to be applied. Merely because it was standard practice at the EPO prior to T 1173/97 and T 935/97 to disallow claims to computer programs, this does not mean that the case law at that point diverged and made previous decisions sufficiently contradictory to justify putting the question to the Enlarged Board.

Since 4(a) is answered in the positive, question 4(b) can be readily answered, given the reasoning already provided above, in the negative. It has been established at least since T 1173/97 (and, arguably, as far back as T 208/84) that only those features which make a technical contribution (i.e. a technical solution to a technical problem) can contribute to the technical character of the invention. Mere acts of programming, which do not result in a further technical effect, cannot therefore be considered to contribute to the technical character of the invention. As a result, question 4(c) is automatically answered in the positive.

Since all the answers can be found from the line of reasoning in decisions from T 1173/97 onwards, and the President has not cited any conflicting decisions that post-date this decision, the questions must be ruled as being inadmissible under Article 112(1)(b).