

THE PATENTS ACT 1977

IN THE MATTER of
applications Nos. 8702665
and 8703650 by Hitachi Ltd

DECISION

Application No. 8702665 was filed on 6 February 1987 by Hitachi Ltd claiming priority from a Japanese application dated 3 March 1986, and was published under the number 2188760A on 7 October 1987. Application No. 8703650 was filed on 17 February 1987 claiming priority from a Japanese application dated 7 March 1986, and was published under the number 2191315A on 9 December 1987. During the substantive examinations the examiner objected that the inventions of both applications were excluded from patentability by section 1(2)(c) in that they related to computer programs as such. The applicants contested these objections and failing agreement with the examiner they requested the appointment of a hearing. Accordingly the matter came before me on 3 May 1990 when Mr E L Ellis of Mewburn Ellis & Co appeared as agent for the applicants.

The present inventions relate to a particular type of computer program known as a compiler, the purpose of which is to assist a program writer by translating a program written by him in a high level language into a

form that is directly executable by a specific computer. As originally filed each application claimed a method of converting a source program written in a high level language into an object program by a particular algorithm, i.e. in essence each claimed a method of compiling a source program. During the negotiations with the examiner the claims were amended and each now takes the following form:-

A method of controlling the execution of a source program by a computer including the steps of -

- (a) compiling the source program using an algorithm to produce an object program, and
- (b) executing the object program by the computer, thereby achieving more rapid execution of the source program.

Each main claim includes the steps of the algorithm that have to be implemented in step (a) above in order to effect the compilation, (and the algorithms are, of course, different) but at the hearing Mr Ellis was content, rightly in my opinion, to refer to these steps collectively as the algorithm since their details are not material to the matter in dispute.

The nub of the argument put forward by Mr Ellis at the hearing was his assertion that the present claims each produce a technical result because each causes a computer to execute a source program more quickly. In support of this assertion Mr Ellis quoted a passage from the judgement of Fox LJ in the case of Merrill Lynch's Application [1989] RPC 561 at page 569, where, having considered the decision of the Court of Appeal in the case of Genentech Inc's Patent [1989] RPC 147 and the decision of the

EPO Board of Appeal in the case of Vicom Systems Inc's Application T208/84 [1987] OJEPO 14, he stated -

"The position seems to me to be this. Genentech decides that the reasoning of Falconer J is wrong. On the other hand, it seems to me to be clear, for the reasons indicated by Dillon LJ that it cannot be permissible to patent an item excluded by section 1(2) under the guise of an article which contains that item - that is to say, in the case of a computer program, the patenting of a conventional computer containing that program. Something further is necessary. The nature of that addition is, I think, to be found in the Vicom case where it is stated: 'Decisive is what technical contribution the invention makes to the known art.' There must, I think, be some technical advance on the prior art in the form of a new result (e.g. a substantial increase in processing speed as in Vicom)."

The examiner accepted, as I do, that the algorithms included in the compilers of the present inventions will, in general, increase execution speed of the resulting object code, but he argued that Fox LJ could not have meant that a mere increase in processing speed is sufficient to secure patentability since if this were the case then the original claims in Vicom - and these were claims to an algorithm which gave rise to an increase in processing speed - would not have been rejected by the EPO Board of Appeal.

As I understand the Vicom case, the claims that the EPO Board of Appeal allowed to proceed, namely claims directed to image processing, were allowed not because the algorithm involved achieved an increase in processing speed but because the claims related to a technical process producing a technical result, the process being some form of enhancement performed upon images represented by arrays of numbers,

and the result - or more correctly one feature of the result - being that the operations were effected more quickly.

Thus, I do not accept the argument of Mr Ellis that the increased speed of execution of the programs produced by the compilers of the present inventions defeats the objection raised by the examiner.

At the hearing Mr Ellis drew attention to what he saw as a number of inconsistencies between the practices of the EPO and of the UK Office and courts, but when I put the point directly to him he accepted that I was bound to follow the UK courts. In particular, Mr Ellis accepted that I was bound to follow the conclusion that Aldous J reached, following consideration of the Merrill Lynch and Genentech Applications, in the as yet unreported case of Gale's Application, namely -

"From those cases I conclude that the first task of the court is to construe the claim as that is where the invention is defined. If the claim properly construed is drafted so as to relate to any of the matters disqualified by section 1(2) then the invention is not patentable. If however the claim is drafted to a process or technique or product and the basis of such process technique or product is a disqualified matter, the court should go on to consider whether the claimed invention is in fact no more than a claim to an invention for a disqualified matter. It is a question of fact to be decided in each case, but if the claimed invention is more than a claim to an invention for a disqualified matter then it qualifies as a patentable invention.

In deciding that question of fact it is always important to consider whether the claimed invention is part of a process which is to be used in providing a technical result. If it is, then the claim cannot be said to be an invention relating to no more than one of the disqualified matters. Similarly, where a claim is directed to a

product, it is important to consider whether the product claimed is a new technical product or merely an ordinary product programmed in a different way as in the latter case the claim is in reality to the programme and therefore could not relate to a patentable invention."

and the disqualified matters referred to by Aldous J are -

- (a) a discovery, scientific theory or mathematical method;
- (b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;
- (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer, and
- (d) the presentation of information.

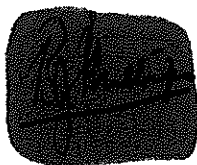
Applying the above passage to the claims of the present applications, I find, for the reasons that I indicated in my decision on an earlier application No. 8700138 (2186402A) by the present applicants, that the claims of both applications are no more than claims to their respective compilers.

At the hearing Mr Ellis put forward alternative claims which he asked me to consider in the event that I found against him. However, after the examiner said that he thought that the alternative claims, if intended to be directed to apparatus, were not supported by their respective descriptions, Mr Ellis withdrew his request. Nonetheless I have looked at the alternative claims and in my opinion they also are no more than claims to their respective compilers.

In conclusion I support the examiner's objection that the inventions claimed are excluded from patentability by section 1(2) of the Act in that they relate to computer programs as such, and I refuse to allow the applications to proceed. Further, since I cannot envisage any amendments which will overcome the objections I decline to set a period in which amendments may be filed.

Any appeal from this decision should be filed within a period of six weeks from the date of the decision as stated below.

Dated the 14th day of June 1990



B J Phillips

Principal Examiner, acting for the Comptroller

