

Software and business method patents in Europe and the United Kingdom

Patents for software and business methods have been a contentious topic of discussion amongst patent practitioners in Europe for a long time. This briefing note aims to explain the current situation and resolve common misconceptions.

Background

In recent years, the European Patent Office (EPO) and United Kingdom Intellectual Property Office (UKIPO) have continued to develop the way in which the allowability of patent applications for computer software and business methods is assessed. This has led to much confusion and uncertainty for patent applicants.

The starting point for much of the confusion is Article 52(2) of the European Patent Convention (EPC) which is mirrored in the UK under Section 1(2) of the Patents Act 1977.

Article 52(2) EPC sets out a list of activities which shall not be regarded as inventions (commonly referred to as categories of "excluded subject-matter"), specifically:

- discoveries, scientific theories and mathematical methods;
- aesthetic creations, schemes rules and methods for performing mental acts, playing games or doing business, and programs for computers; and
- presentations of information.

Article 52(3) EPC qualifies Article 52(2) EPC by excluding the subject matter of these activities only to the extent to which a European patent application or patent relates to such subject matter as such.

As a result, patents can be granted in the UK and at the EPO for inventions which involve the categories of excluded subject matter set out in Article 52 EPC. However, the "*as such*" qualification has also been used to limit the scope of allowable subject matter in these categories.

How does the EPO interpret Articles 52(2) and 52(3) EPC?

The first important case to address the issue of subject matter involving computer software was EPO Technical Board of Appeal case T208/84 ("Vicom"). A claim to a method of digitally processing an image was allowed, even though the processing was essentially carrying out the steps of an algorithm. The processing was considered to be technical and therefore the claim was not excluded because it related to a computer program or mathematical method as such.

The basis for the qualification that an invention must be technical arises from the EPC which states:

- "The claims shall define the matter for which protection is sought in terms of technical features of the invention" (Rule 43(1) EPC); and
- "The description shall: (a) specify the technical field to which the invention belongs" (Rule 42(1)(a) EPC).

In 1999, two EPO Technical Board of Appeal cases, T935/97 and T1173/97 ("*IBM*"), established that claims having the form "a computer program product" and "a computer readable medium having a program recorded thereon" were allowable.

Following the IBM decisions, it became accepted practice of the EPO that software itself could be claimed directly. This continues to be the practice of the EPO so long as other requirements, such as clarity of the claim language and sufficiency of disclosure, are met.

Recently, if a claim involves technical features, then the EPO has not rejected it for simply relating to excluded subject matter.

In 1994, an EPO Technical Board of Appeal case, *T769/92 ("Sohei")* considered a claim to "a computer system for plural types of independent management including at least financial and inventory management". Essentially the invention was directed to a user interface comprising a single transfer slip displayed on a display screen of the computer system through which a debit item, credit item and a commodity item could be input successively.

The application was allowed because it was considered that the user interface imparted technical considerations to the solution of a problem. It was decided that exclusion from patentability could not be established merely by the presence of a feature which would itself be excluded. Thus, it did not matter that the claim included a feature which was directed to a management system, provided there were other technical features which solved a technical problem.

A significant shift in approach was arrived at in *T931/95 ("Pension Benefits System Partnership")*, in which it was held that the claims of an application must define non-excluded subject matter and be novel and inventive. The claims were directed to a method and an apparatus for controlling a pension benefit program. The method claim referred to technical means, but was refused because it related to a method of doing business as such (i.e. it did not define non-excluded subject matter).

The apparatus claims however did define technical features and were not refused merely because they related to excluded subject matter. However, the apparatus claims were refused on grounds that they lacked an inventive step because

it was viewed that the differences from the prior art lay in an economic field (i.e. non-technical) and hence there was no technical contribution provided by the distinguishing features of the invention. This case marked a substantial shift in the EPO's approach to non-excluded subject matter.

Subsequently, in *T258/03 ("Hitachi")*, the Board of Appeal held that there could be no distinction between apparatus and method claims in the assessment of the technical contribution of features. Therefore, method claims involving technical apparatus (e.g. a computer) should also be considered under the requirement of inventive step.

Recently, if a claim involves technical features, then the EPO has not rejected it for simply relating to excluded subject matter. The question has been whether the distinguishing features over the closest prior art which provide a technical contribution provide a non-obvious technical solution to a technical problem - i.e. the question has been one of inventive step.

The *Pension Benefits* and *Hitachi* cases essentially removed all, except the most trivial, subject matter from direct exclusion under Article 52(2) EPC by shifting the assessment of technical contribution to an inventive step test under Articles 52(1) and 56 EPC.

In 2008, in referral G3/08, the President of the EPO referred questions regarding the patentability of programs for computers to the EPO's Enlarged Board of Appeal. After a lengthy period in which many *amicus curiae* briefs were filed, the Enlarged Board declined to answer the questions posed in the referral on a legal technicality; it was held

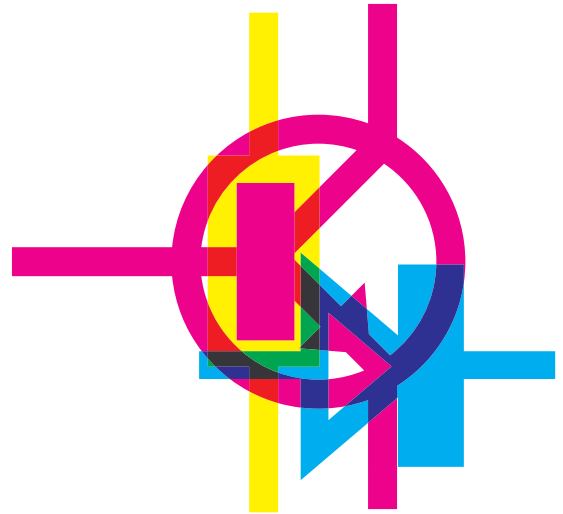
that, since there was no divergence in existing case law, the legal requirements for the referral itself were not met.

For the time-being, the EPO will continue to apply the precedents set out in the *Pension Benefits* and *Hitachi* cases, amongst others.

What is the current practice of the EPO?

When assessing whether a claim which includes computer-implemented or business method subject matter is patentable, the following is the current test applied by the EPO:-

1. Identify the closest prior art;
2. Identify distinguishing features of the claim over the closest prior art which provide a technical contribution (i.e. technical features that aim to solve a technical problem); and
3. Assess whether the (technical) distinguishing features would be obvious to the skilled person in light of the technical problem.



Unfortunately, there are still unresolved issues concerning the application of this test. Since the referral to the Enlarged Board was inconclusive, it can be expected that debate will continue over the extent to which patents can be granted for computer-implemented inventions at the EPO.

What has the EPO granted patents for?

In the past, European patents have been granted for inventions in a number of fields which might be deemed to fall within the software and business method categories, for example in areas as diverse as image processing, graphical manipulation software, artificial intelligence, user interfaces, speech recognition, operating systems, genetic algorithms, genetic mining systems, database systems and financial trading systems.

How does the practice of the UKIPO differ from that of the EPO?

In the past, the UKIPO has attempted to follow the EPO's approach to software and business method related inventions. However, the UKIPO is bound by the precedents set by the UK Courts. This can often result in disparity between what the EPO and UKIPO will allow.

Practice in the UK was defined in a UK Court of Appeal judgment in *Fujitsu Limited's Application* ("Fujitsu") which was an appeal against an appealed decision to refuse an application relating to crystal modelling using a computer. The judge in this case confirmed that a criterion for patentability of subject

matter which, on the face of it, falls within the statutory exclusions was that the claimed invention should provide a **technical contribution** in order to be patentable. Following the *Fujitsu* case in the UK and the *IBM* cases at the EPO, the UKIPO issued a practice notice which stated that its practice towards software related inventions would "remain in step with that of the European Patent Office".

However, when the EPO moved to its current "inventiveness" test following the *Pension Benefits* and *Hitachi* cases, the UKIPO continued to apply the "technical contribution" approach, as it had to following the precedent in *Fujitsu*. There was therefore a disparity in the way in which the UKIPO and EPO viewed the wording of the EPC.

In 2006, two cases which involved issues of excluded subject matter, *Aerotel Ltd v. Telco Holdings Ltd* and *Macrossan's Patent Application* reached the UK Court of Appeal and were conjoined in a single judgment. This led the Court of Appeal to reaffirm its support for the traditional UK approach to excluded subject matter in which the **technical contribution** of a claim is decisive in determining whether claimed subject matter is excluded from patentability.

However, following two further judgments in the Patents Court, the UKIPO issued a further practice note stating that it would **not** reject claims to a computer program or a program on a carrier merely on account of their form.

A further judgment from the Court of Appeal in *Symbian Limited v Comptroller General of Patents* was handed down in the latter part of 2008. This case was an appeal brought by the UKIPO against a decision by a lower court to overturn the

UKIPO's refusal of Symbian's software-related patent application concerning accessing data in a dynamic link library in a computing device. In the case before the Court of Appeal, the UKIPO asserted that a computer program is excluded from patentability unless it has a novel effect outside the computer.

The Court of Appeal did not agree and asserted that a computer program is allowable if, when it is run on a computer, it provides a better computer, for example by being more reliable and improving the functioning of the computer. In Symbian's case, this was because the software "has the knock-on effect of the computer working better as a matter of course". In essence, it is not a precondition for patentability that there is a novel effect outside the computer.

The Court of Appeal's judgment in *Symbian* did not go as far as adopting the EPO's approach to software inventions. However, it does say that the UK and EPO approaches should give the same result. This judgment should now mean that the UK stance on patentability of software-related inventions, whilst not necessarily following the same reasoning, should be broadly similar to that of the EPO.

Nevertheless, since the UK and EPO approaches can still differ in the way in which they are applied to specific cases, there are likely to be situations where patents may be allowed by the EPO, but not by the UKIPO, and vice-versa.

How does all this apply in practice to the applicant?

For applications relating to pure business methods or computer programs involving only conventional computer program steps, refusal should be expected under both UK and EPO approaches. Yet there remains uncertainty in the middle ground and application of the two approaches to the same claimed invention may produce different results.

Since the national courts have the final say on whether patents granted by the EPO are valid, applicants and patentees should be aware that, due to differences in approaches, even if a patent relating to a computer-implemented invention is granted by the EPO, there may be a higher level of risk that the patent could be revoked by a national court, than would be the case for patents in other areas of technology.

In order to increase the likelihood of having a patent application relating to business methods and software granted and reduce the risk of revocation by a national court, applicants should ensure

that patent applications relating to software and business methods describe physical, technical components and highlight technical advantages achieved by the invention and possible sub-inventions. The specific steps of data processing and the interaction between components implemented using conventional hardware and software should be fully explained in detail in the patent specification, along with the technical advantages that these steps achieve.

Need advice?

Carpmaels & Ransford has a team of experienced patent attorneys who are able to advise on the patentability of software and business method related inventions. We keep a close eye on developments at the EPO, UKIPO and Courts. For specific advice, please contact any one of the following partners:

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Carpmaels & Ransford is a leading firm of European patent attorneys based in London. For more information about our firm and our practice, please visit our website.

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