

ALCATEL Position Paper

of 4.12.2000

regarding

Consultation Paper by the Services of the Directorate General for the Internal Market of 19.10.2000 - „Possible key elements for a harmonised approach to the patentability of computer-implemented inventions in the European Community“

prepared by
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General comments

The planned directive should have two main objectives: first, to establish on the level of European patent legislation the equal treatment of information technology with other branches of technology, as provided for in the TRIPs Agreement and, to a great extent, in the jurisprudence of the EPO Boards of Appeal and some national instances; second, to ensure that the level of protection through patents in Europe remains consistent with that in the US and Japan.

The provisions should be written in such a manner as to occasion the deletion of the provision concerning "programs for computers" from Article 52(2) EPC. The circumstance that the diplomatic conference on the revision of the EPC delayed this step merely implies that the Member States of the European Patent Organisation preferred a solution where the institutions of the European Union take the initiative, producing the same result complemented with the added legitimacy of an European Parliament approval. The provisions of the Directive once approved by the Member States in the European Council and by the European Parliament, a corresponding amendment of the EPC could ensue at a new revision conference already being planned.

In the pursuit of these objectives, matters should not be needlessly complicated: too many provisions or new legal concepts are hardly desirable. Instead, the provisions of the planned directive should mainly reflect the basic principles of patent law as brought into expression in the latest relevant jurisprudence. The courts and appeal instances have essentially assumed a progressive standing and bringing new statutes into play implies the risk of not only confusing the situation, but also of making some of the newly attained progress void. Any resulting problems would be accentuated by the circumstance that statutes, once enacted, cannot be amended within a short time period, like judge-made law.

Basis for harmonisation

In establishing the notion of equal treatment already referred to, the provisions of the directive should be built on the following principles: (1) explicitly allowing claims to software in the form it is marketed; (2) retaining the implicit requirement of technical character which is inherent to the European concept of invention; (3) applying the same requirement of inventive step as is applied to inventions in other fields (whereby a high quality of examination has to be provided).

It should here be pointed out that if the provisions of a future directive proposal would appear restrictive and cling to outdated notions, or be overly complicated, then the question could be put, whether it would be in the interest of the industry to have any directive at all.

Impact of harmonisation

Here it is undertaken to answer some of the questions posed in the Commission's paper:

(1) Impact on innovation in software and underlying knowledge and techniques

The patent system, as an incentive for innovation, has proven itself in the context of the „old economy“. Why should this be any different for the „new economy“, which is not less, but rather even more based on innovation and technology? From this perspective, it is not a surprise that the “new economy” has expanded most forcefully in the country with arguably the most liberal patent law – United States (cf. independent study “The Economic Impacts of Patentability of Computer Programs”, 34-36).

Whether granting patent protection is justified is a matter of benefit to the society. Such benefit has already manifested itself in all branches of the old economy and, according the US experience, in the new economy.

(2) The ability of SMEs to enter the market of innovative software tools and services and the market of innovative applications of software

The competitive advantage of SMEs is typically based on differentiation made possible by innovation and technology, not on economies of scale and the resulting low costs. Apart from secrecy, only intellectual property rights can sustain such technology-based competitive advantage. Possessing patents augments the strength of the small business in relation to large competitors with lots of marketing power (cf. e.g. Stacs Electronic vv Microsoft).

It is worth emphasising that small software firms cannot be equated with the opponents of software patenting; the statistics concerning applicants for software patents show that on the national level, a great majority of the applicants are SMEs or independent inventors.

(3) The creation and dissemination of free/open source software;

There is no reason to assume that software patents could not coexist with free/open source software, as already is the case with software copyright. Both patents and copyright are property regimes that can be employed to exclude – justly - others from the use of a resource created by the proprietor. There is, however, no obligation to employ such entitlements to exclude others; as with all property rights, the proprietor is free to concede to others whatever liberties he wishes.

There is no visible threat to the free software community from software patents; this is evident from the circumstance that there are virtually no lawsuits known where small software firms would have been sued by large corporations. Nowhere is the free software-movement more prosperous than in the US, where the patent system since 1980s has been very liberal towards software patents. This long coexistence proves that software patents do not impact in a negative way the free software community.

In this context, it may be pointed out that *non-commercial* use of inventions does not constitute infringement of a patent on that invention. Moreover, it should be clear that it is only the described and disclosed real-world application, the reducing into practice, of a certain idea or algorithm that can be claimed and made subject to a patent right.

Thus, software patents would not threaten anyone's "way of life"; it is merely the *commercial* use of software that should be subjected to the same incentive systems that have proved themselves in all other branches of technology. Opposition of the patent system within certain interest groups has to do with different systems for rewarding innovation, for instance through receiving attractive employment offers as a consequence of being known as a skilful programmer, through employing copyright in a collective manner, such as the GNU "copyleft" licence, or through employing a business model where profit is generated not through offering products for sale, but through offering services, including distribution of free software (it is pointed out in the preamble of the GNU General Licence that "free" as in Free Software refers to freedom, not to price). These factors entail an inability, or an inertia, in adjusting to thinking in terms of individual-level intellectual property rights.

As regards the objection that the incremental nature of progress in the software industry makes the branch unsuitable for intellectual property rights, it can be pointed out that this is also the case in many other branches, e.g. in chemistry, where nobody today complains about the possibility to obtain patents for inventions.

As already pointed out, small software firms cannot be equated with the opponents of software patenting; the statistics concerning applicants for software patents show that on the national level, a great majority of the applicants are SMEs or independent inventors. It seems likely that with

increasing patent awareness, the opponents of software patents will be further marginalised.

To summarise: the discontent of a small lobby, based on unsubstantiated allegations, cannot justify depriving the entire economy of its growth and the entire society of its increase in wealth.

(4) The position of the European software industry in global competition

The software business is a global market. If firms carrying out their development activities in Europe cannot obtain the same level of protection for their software innovations, they are disadvantaged in relation to their competitors having their development activities in the US, for instance. This is due to the circumstance that firms, especially SMEs, typically seek patent protection primarily in the territory they are located in and then further file within the priority period some of these inventions in other territories they may become active in. As a consequence of this, commercially interesting inventions that cannot be protected in the home territory will then never be filed anywhere.

Another example might be helpful in illustrating the issues at hand: in a situation where a European software firm wishes to start exporting to the US, it may learn that its products infringe US patents. Typically negotiations with the proprietor would ensue and it could be arranged that the proprietor concedes a licence to the European firm if one is granted back under the European patents owned by the latter. But if there are no such patents, the negotiating strength of the European firm is greatly diminished and it is compelled to pay high licence fees in the US whereas the US firm may import to Europe competing products without having to fear being sued for infringement.

The lack of adequate protection for software-related inventions in Europe negatively affects the position of European firms in the global competition. It directly decreases the value of European firms relying on software innovation and undercuts their incentives to invest in R&D, which inevitably has negative long-term effects for global competitiveness.

(5) The general development of the Information Society

Information itself is a public good lacking appropriability; it does not sustain property regimes as the ownership of information could not be enforced through legal action. However, the reducing to practical application of such information produces a result that can be appropriated. This appropriation should be supported by law, or there will be no incentive to expend the needed effort. Property rights have the same economic

effects as in all other fields of human activity: information society cannot prosper in the long term without setting incentives for innovation.

(6) Combating excessive monopolisation

As a final remark on the impacts of harmonisation, it is suggested that economically harmful monopolies should be combated directly at the level of anti-trust law, not indirectly through making “holes” in intellectual property regimes. Typically, such indirect intervention causes more harmful side-effects as it can not be precisely targeted and is likely to distort the entire mechanism (cf. the economical effects of price controls v. direct subsidies). Thus, any concerns relating to increased monopolisation cannot justify a negative attitude to software patents.

Comments on the specific provisions of the Commission’s proposal

COMMISSION proposal:

i. The principle

Patents shall be granted for any inventions in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application. In that context, a computer-implemented invention is considered to belong to a field of technology.

ALCATEL position:

We agree in essence with the proposition of this article. The first sentence establishes the principle set out in the TRIPs Agreement, which can be regarded as a positive development. The second sentence clarifies this further and conveys the message that the exclusion of “computer programs as such” as set out in Article 52(2) EPC should be discarded.

To avoid any outdated limitation to hardware inventions, the second sentence should however be amended as follows:

i. Technical character of computer- and software-related inventions

Patents shall be granted for any inventions in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application. To avoid any doubt, computer- and software-implemented inventions shall be regarded as belonging to a field of technology.

It may be noted that the term "invention" is, according to an established European legal tradition, regarded as presupposing a technical character, also referred to as technical nature (see e.g. EPO Board of Appeal decisions T 935/97, T 1173/97, T 931/95 and EPO Administrative Council Document CA/PL 6/99). Considering the rapid development of technology, the question concerning how technical character precisely is determined should be left to the courts and appeal instances.

COMMISSION proposal:

ii. The complementary nature of patent and copyright protection

Patent protection for a computer-implemented invention does not extend to the expression of a computer program based on that invention, in source code or object code or in any other form.

ALCATEL position:

This provision is unacceptable for a multitude of reasons. First, it can be pointed out that its content does not correspond to its title as the former effectively denies complementing one kind of protection with the other.

Any provision forbidding complementary, or 'double protection', derogates from the approach assumed by the European legislator in other contexts (see e.g. Article 9 and recital 26 of the Council Directive 91/250/EEC on the Legal Protection of Computer Programs). There have been no published negative experiences with such 'double protection'.

In practice, the suggested provision would entirely deprive a patent of its legal effect as merely writing a program implementing an invention would render the patent protecting that invention invalid in respect of the new program.

Instead, it should be explicitly expressed that complementary protection is available:

ii. Continued application of other legal provisions

The provisions of this Directive shall be without prejudice to any provisions of Community law or the law of the Member States relating to protection of computer- or software-related inventions by other industrial property rights or copyright.

It seems that the provision suggested by the Commission aims at narrowing the scope of a patent granted on a computer- or software-related invention. However, the scope of a patent, i.e. which activities constitute infringement, should even here be determined according to the applicable general rules as expressed in legislation and jurisprudence.

COMMISSION proposal:

iii. The requirement of a non-obvious technical contribution

A computer-implemented invention, to involve an inventive step, must make a technical contribution to the state of the art which, having regard to the state of the art, is not obvious to a person skilled in the art.

ALCATEL position:

In referring to „a technical contribution“ in the context of determining inventive step, this provision introduces to the legislation a new concept, which is completely superfluous and may occasion confusion – especially as it has in the past been employed in the context of determining the technical character of an invention (now this „contribution approach“ seems to have been discarded; see e.g. EPO Board of Appeal decisions T 935/97, T 1173/97 and T 931/95 and German Federal Supreme Court decision X ZB 15/98 of 11.5.2000).

There are no requirements of technical *progress* or technical *contribution* in modern patent laws; merely technical *character* is required, based on long-standing jurisprudence. It would be most peculiar if the requirement of a technical contribution would now be introduced to European law – regardless of whether for the purpose of determining technical character, or for the purpose of determining inventive step, as suggested in the proposal of the Commission. Such a proposition finds no support in recent jurisprudence (see German Federal Supreme Court decision X ZB 15/98, reasons II (1) i.f.)

The manner in which the inventive step of a computer-or software-related invention is determined should not be different from that applied in respect of inventions in other fields of technology.

If an invention is regarded as technical, then it merely remains to assess whether it should, from the perspective of a technically educated person, be regarded as not belonging to the state of the art (novelty), and finally, whether it should be regarded as non-obvious (inventive step). The proven and established criterion of inventive step has no content apart from non-obviousness and should not be tampered with. If it is felt that there should necessarily be a provision in the directive addressing inventive step, then it would be sufficient to recount that:

iii. Inventive step

To involve an inventive step, a computer- or software-related invention shall not be obvious to a person skilled in the art.

COMMISSION proposal:

iv. The "technical considerations" criterion

A technical contribution may be implied, for instance, by the need for technical considerations to arrive at the computer implemented invention as claimed. The claimed invention must relate to the features resulting from those technical considerations.

ALCATEL position:

As a consequence of the suggested amendment to point 3, this dependent provision should be deleted. The "technical considerations" criterion, as applied in the EPO jurisprudence, may be a suitable approach for determining the technical character of an invention yet should not be introduced in this context of determining the inventive step.

COMMISSION proposal:

v. The assessment of technical and non-technical features – consequences for business methods

In determining the technical contribution, the invention must be assessed as a whole. It may consist of a mix of technical and non-technical features but in determining the technical contribution only the technical features are taken into account. Where the contribution lies merely in non-technical features, the invention will not be considered as involving an inventive step.

ALCATEL position:

As the provision is dependent from the two previous ones, the same comments apply here as well. The suggested provision should be deleted as the matter is already regulated through Art iii.

Mere business methods are excluded from patent protection on the basis that they are not inventions in any field of technology i.e. they do not provide a technical teaching (see Art (i) supra; cf. EPO Board of Appeal decision T 931/95, where it was held that "methods only involving economic concepts and practices of doing business are not inventions within the meaning of Art 52(2) EPC", whereas "an apparatus constituting a physical activity or concrete product suitable for performing or supporting an economic activity is an invention within the meaning of Art 52(2) EPC").

COMMISSION proposal:

vi. The possible claims

A computer-implemented invention may be claimed as a product, namely as the programmed computer, or as a process, namely as the process carried out by the programmed computer.

ALCATEL position:

Limiting product claims to programmed computers would imply that patents could only be enforced against end users, which is normally not practicable. If the invention is implemented in software, there is an acute need for protection at an earlier stage, i.e. in the context of offering for sale. Appropriate protection necessitates claiming software in all forms in which it is offered for sale: on CD-ROM, through the Internet etc.

If product claims were limited to programmed computers, such pre-programmed computers would effectively become the only viable distribution channel for software, which in turn would distort the market. This would cause great disadvantages especially to the SMEs, which typically do not offer complete computer systems (hardware and software) but distribute their software solely on CD-ROMs, or through the Internet.

Appropriate protection would imply sustaining the possibility to directly claim computer programs - either by itself (see EPO Board of Appeal decisions T 935/97 and T 1173/97), or as a computer-readable storage medium having a program recorded on it. It should be pointed out that such claims to computer-readable storage medium having a program or a

data structure recorded on it are allowed in the United States as well as in Japan and Korea. Having to draft different claims for European applications entails great expense, which is a concern for any firm filing for patents globally but presumably especially for SMEs with limited resources.

Limiting process claims to a process carried out by a programmed computer would be equally counterproductive as the product-claim limitation - inventive computer- or software-implemented processes may manifest themselves in other configurations as well, and other hardware units may be involved.

If a provision relating to possible claims is desired, it should state the following:

vi. Claims

Computer- and software-related inventions may be claimed, for instance, as products, including a computer program by itself or a storage medium having a program or a data structure recorded thereon, or as processes.

COMMISSION proposal:

vii. General patent law as continuous essential basis for protection

Beyond of what would be provided for in any Directive, the procedural and substantive legal rules of European patent laws would remain the essential basis for the legal protection of computer-implemented inventions.

ALCATEL position:

This provision seems to be superfluous as it merely states that the directive does not concern issues which are not regulated through it.

ALCATEL is a major global player in the area of telecommunications and the Internet. Of the 1999 sales of € 23 billion, 85% were from

telecommunications. ALCATEL has 120,000 employees worldwide (1999), 74 % of them in Europe.

Currently most of ALCATEL's research and development work is carried out in Europe: there are major R&D activities in France, Belgium, Italy, Spain, Germany and Austria. In France alone, more than 6000 employees work on R&D.

In 1999, ALCATEL devoted € 2.1 billion (9.2% of sales) to its R&D budget and filed 850 new patents.