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EU's Software Patent Directive: Is Harmonization on the Horizon?

Computer software patents have been recognized under U.S. law since the 1980s, but they are not uniformly recognized internationally. The legislative bodies of the European Union recently have been considering the adoption of a Software Patent Directive that would clarify the status of software patents in EU member countries. If adopted in its current form, the directive would harmonize the national laws of the EU Member States and more closely align EU computer software patent law with the laws of the United States and Japan. The directive is controversial, however, and it is currently bogged down in the legislative processes of the European Union.

This article will cover the current status of software patents in the EU member countries in comparison to the U.S. and Japan, the provisions of the directive, and the controversy surrounding its consideration.

United States and Japan

Both the United States and Japan, which are among the leading industrialized nations in the world, recognize computer software patents. In *Diamond v. Diehr*, 450 U.S. 175 (1981), the U.S. Supreme Court construed the patent statute to permit the patenting of computer programs if they are part of a process. Slightly more than a decade and a half later, the U.S. Court of Appeals for the Federal Circuit eased the requirements for the patentability of computer software in its landmark ruling in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F3d 1368 (Fed. Cir. 1998). The court not only held that methods of doing business could be patented, but also that mathematical algorithms are patentable if their application produced a "useful, concrete and tangible result." Today, computer software, like



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any other invention, is patentable in the U.S. if the necessary legal requirements (useful, new and not obvious) are met.

Under Article 2(1) of the Japanese Patent Law, computer software, like all other inventions, is patentable if it is a highly advanced creation of technical ideas by which a law of nature is utilized.¹ In February 1997 the Japanese Patent Office issued its Implementing Guidelines for Computer Software-Related Inventions,² published, in part, to "adequately protect software related inventions by clarifying that 'computer-readable media recording computer programs' may constitute statutory subject matter."³ Just three years later, in 2000, the Japanese Patent Office issued revised Examination Guidelines for Patent and Utility Model in Japan, which included Computer Software-Related Inventions. Under these lengthy guidelines, the Patent Office sought to address the issues raised concerning the patentability of software-related inventions that are not necessarily recorded on computer-readable media (i.e., Internet-related inventions), as well as the patentability of business methods. Its purpose was to, among other things, achieve consistent decisions among patent office examiners and efficient implementation of the patent and utility model laws.⁴

European Patent Convention

The issue of computer software patentability in European countries is complicated by the fact that the current patent regime in many (but not all) of the EU member nations is subject to The European Patent Convention of

1973. The Convention created the European Patent Organization and its operational arm for the issuance of patents, the European Patent Office. Although most of the Convention's contracting states are members of the European Union,⁵ the Convention is not part of the EU legal system. Patents issued by the Office have force and effect in contracting states pursuant to the provisions of the Convention and the local laws of the contracting states and not by virtue of EU law.

The treatment of computer software patents under the European Patent Convention is complex and has evolved over time.⁶ The starting point is Article 52(2) of the Convention, which expressly excludes "programs for computers" and "business methods" from the definition of patentable inventions. Despite this language, however, patents covering computer software have been granted pursuant to decisions of the European Patent Office Board of Appeal. The panels in those cases interpreted Article 52(2) in light of other provisions of the Convention, including Article 52(3), and concluded that while computer software and business methods cannot be patented as such, they can be patented on the basis of the technical effects produced by the software or method.⁷

On Aug. 31, 2001, the European Patent Office issued new guidelines with respect to the patenting of computer programs and business methods. The purpose of these amendments was to conform the guidelines to the aforementioned European Patent Office Board of Appeal decisions concerning the patentability of business methods and computer-related inventions and with current European Patent Office practice on examining such subject matter.⁸

Under the 2001 amendments, the European Patent Office, as it had in the past, relied on language in Article 52(3) of the Convention and language in Rules 27 and 29 of the Convention's Implementing Regulations to issue computer software patents. Under the revised, current guidelines, the European Patent Office may, assuming all other requirements are met, grant a computer software patent provided it is of a "technical character" to the extent that it must relate to a technical

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field, concern a technical problem, and have technical features in terms of which the matter for which protection is sought can be defined in the claim.⁹ Accordingly, although computer programs per se are not patentable, under the guidelines, "if a computer program is capable of bringing about, when running on a computer, a further technical effect going beyond ... normal physical effects, it is not excluded from patentability, irrespective of whether it is claimed by itself or as a record on a carrier."¹⁰ To date, it is estimated that the European Patent Office has issued over 30,000 software patents.

Harmonization Push

Although it is possible to obtain a patent covering computer software under the European Patent Convention, the practical enforceability of such patents is uncertain. Unlike the situation in the U.S. where federal law is supreme and the Federal Circuit has authority to harmonize patent law, there is no appellate court with authority to harmonize the law applicable to European Patent Office-issued patents. The Convention consigns suits for infringement of European Patent Office patents to the national law of the contracting countries¹¹ and their national courts, which may differ on various issues of application and interpretation of patents and availability of remedies. Thus, although the European Patent Office Board of Appeals supports the grant of computer software patents, the decisions of the Board of Appeals are not binding on national courts.

Under Article 16(4) of the Brussels Convention on Jurisdiction and Enforcement, national courts handle matters of registration and invalidity of a European patent. In practice, this means that separate proceedings must be brought in each country for which invalidation of a European Patent Convention-granted patent is sought. This fragmented system and the uncertainty surrounding the enforceability of computer software patents have caused business people and politicians to express concern that a lack of judicial consistency might have negative effects on investment decisions and the free movement of goods throughout the EU.

Written discussion regarding the need for harmonization of computer-related software patent law extends back to at least 1997, when the EU Green Paper on the Community Patent was issued.¹² By the fall of 2003, the European Commission presented a proposal for a directive of the European Parliament and of the Council on the patentability of computer-implemented inventions.¹³

Battle Is Joined

Controversy has surrounded the proposed directive since it was first taken up by the EU Parliament, with proponents of proprietary

rights in computer related inventions lining up against activists with a contrary view. In particular, supporters of the open source movement in the U.S. and in Europe have weighed in against computer software patentability and lobbied hard against the directive. Both interest groups have had some successes as the proposed directive has made its way through the complicated EU legislative process.

The European Parliament voted to approve the proposed directive in late 2003, but added a series of amendments designed to limit the patentability of computer software and prohibit the patenting of business method inventions. The proposed directive then moved to the European Council, which legislates jointly with the European Parliament. In May 2004, advantage shifted to the proponents of proprietary rights when the EU Council approved changes to the Parliament's version of the proposed

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directive, essentially removing the earlier limitations, and even adding new language broadening its scope. In July, however, doubt was cast on the validity of the Council's changes when several countries claimed that they had mistakenly voted in favor. The Netherlands, in an unprecedented action in the EU legislative process, even instructed its minister of economic affairs to change its government's vote from a "yes" to a vote of abstention.¹⁴

This is not yet the last act. Under the EU system, there is still plenty of opportunity for opposition and change in the language of the proposed directive. Under European Union law, the proposed directive must ultimately return to the European Parliament. If Parliament is unhappy with the changes made by the EU Council, it will need a majority of all the members of the European Parliament to add its amendments. If such changes are made, the directive will return to the Council for another reading. If the Council disagrees with any such changes, the legislation will be sent to a reconciliation committee, which will settle the matter.¹⁵

With legislative action on the pending European Software Directive expected in the near future, some certainty on the ability to patent computer software in the EU may result. What exactly the outcome of the directive will

be once the legislative process has concluded remains unknown, but the likelihood that EU law will become more like that of its US and Japanese counterparts nonetheless remains a real possibility.

1. See Law No. 121 of April 13, 1959 as amended by Law No. 220 of Dec. 22, 1999 entry into force: Jan. 6, 2001, available at <http://www.jpo.go.jp/shoukaie/patent.htm#2> (last visited Sept. 28, 2004).

2. The full guidelines can be viewed at http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/txt/soft-e.txt (last visited Sept. 28, 2004).

3. See Preface, Japanese Guidelines for Patent and Utility Model in Japan, available at http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/1312-002_e.htm (last visited Sept. 20, 2004).

4. See Computer Software-Related Inventions, Part VII, Chapter 1, Japanese Guidelines for Patent and Utility Model in Japan, available at http://www.jpo.go.jp/tetuzuki_e/t_tokkyo_e/1312-002_e.htm (last visited Sept. 20, 2004).

5. Latvia, Lithuania and Malta were among ten new countries to join the European Union on May 1, 2004. However, these three countries are not members of the European Patent Office. Switzerland, Liechtenstein, Turkey, Monaco, Bulgaria and Romania, which are members of the European Patent Office, currently are not members of the European Union. At the time of this writing, there were 28 European Patent Organization member states.

6. For a thorough discussion of current law regarding Computer software patents, see, Reiner Bakels and P. Bernd Hugenholtz, The patentability of computer programs, Discussion of European-level legislation in the field of patents for software, European Parliament, Directorate-General for Research, Working Paper (Sept. 2002), available at http://www4.europarl.eu.int/studies/internet/workingpapers/juri/pdf/107_en.pdf.

7. The following cases were of particular concern to the EPO: T 769/92, 31 May 1994 OJ (EPO 1995, 525); T 1173/97 of 1 July 1998 (OJ EPO 1999, 609); T1194/97 of 15 March 2000 (OJ EPO 2000, 525); T 931/95 of 8 Sept. 2000 (OJ EPO 2001, 441).

8. See European Patent Office Press Release, Official Information, Amendment of the Guidelines in the European Patent Office regarding the patentability of business methods and computer-related inventions, available at http://www.european-patent-office.org/news/pressrel/2001_10_05_e.htm (last visited Sept. 28, 2004). The European Patent Office last amended its guidelines on Nov. 21, 2003, which were published in a complete "December 2003" edition. However, none of these amendments substantively affected the patentability of computer software.

9. See European Patent Office December 2003 Guidelines, Part C, Chapter IV, Patentability, §1.2 (Further requirements) and §2.2 (Examination practice) at http://www.europeanpatentoffice.org/legal/gui_lines/pdf_2003/index.html. (last visited Sept. 22)

10. See note 9 at Section 2.36 (programs for computers).

11. Article 64(3) provides, in pertinent part, that "any infringement of a European patent shall be dealt with by national law." Article 64(3) can be viewed in its entirety at <http://www.european-patent-office.org/legal/epc/ar64.html> (last visited Sept. 20, 2004).

12. The Green Paper is available at http://europa.eu.int/comm/off/green/index_en.htm (last visited Sept. 20, 2004).

13. The current revision of the directive, with preparatory documents, can be viewed at http://www.europa.eu.int/comm/internal_market/en/indprop/comp/index.htm (last visited Sept. 28, 2004).

14. Jennifer L. Schenker, "Europe's Software Patent Policy Under Siege," International Herald Tribune Online, (July 7, 2004) available at: <http://www.ihf.com/bin/print.php?file+528268.html>.

15. For an overview of the EU legislative process, see Dr. Klaus-Dieter Borchardt, The ABC of Community Law at http://europa.eu.int/comm/publications/booklets/eu_documentation/02/txt_en.pdf (last visited Sept. 28, 2004).

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