

Bang to rights



You've invested thousand of man-hours in developing your new application. You've built in some anti-piracy devices but you're still concerned that it could get ripped off. What are your intellectual property rights and how can you defend them? Software IP specialist **Ilya Kazi** looks at what laws and practices apply around the world.

Intellectual property (IP) laws and how they apply to software are notoriously complex, changing and varying widely from country to county. We'll start with an overview of the issues and move on to practical steps for developers, whether small, fledgling and local or large enterprises with developers spanning many countries.

Confidential information

The golden rule for all types of intellectual property protection is to ensure that all development is kept as far as possible in the form of confidential information, protected by an appropriate Non-Disclosure Agreement (NDA) with all relevant parties. This can give contractual protection as well as the protection generally afforded to confidential information, which varies from country to country. This protection has the benefit of being straightforward and inexpensive to obtain. Care should be taken to avoid undermining protection by lack of rigour in process. Even with care, a business may need to disclose key information and the difficulties of providing appropriate evidence can in practice make enforcement difficult. Independent reverse engineering cannot be stopped.

Copyright protection

Copyright protection is acquired automatically, although for some countries such as the US, assertion of copyright is important. Although proof of copying can sometimes be problematic, in clear-cut cases, copyright can be effectively enforced. Lack of rigour in keeping documentary records of creation and particularly assigning ownership can hamper enforcement. Copyright provides no protection against reverse engineering. Registration of copyrights in some countries, particularly the US, can make enforcement easier, and also help promote better housekeeping with respect to ownership formalities.

Registered design protection

For icons and user interfaces, this can provide very useful protection and although it requires some positive action to be taken to register

the designs, it can be relatively inexpensive – for example a European Community design registration covering all twenty EU member states costs a little over 1000 to obtain. It does not protect the underlying code, and is generally of little relevance to embedded software, but can be a useful tool in protecting an application suite.

Patent protection

This protection is the most complex and expensive to obtain. There are limitations on what can be protected, which vary from country to country, and are dynamically changing.

Given the length of time typically taken to process a patent application it is not unknown for the law to have shifted significantly during the period between filing and examination; the effect may be similar to having developed a Windows application suite for a customer only to learn on shipping that he now runs a Linux environment. Appropriate hedging strategies on filing can mitigate this somewhat.

In Australia, patent protection may be obtained for computer related inventions that include a mode or manner of achieving an end result that is artificially created and has economic utility. More simply put, the invention must be industrially applicable. The standard may however be changing: an Australian judge recently required that computer-based inventions have, "a concrete effect or phenomenon or manifestation or transformation."

In the European Patent Office, computer implemented inventions that solve a technical problem are patentable. An example would be a method for digitally processing images on a computer but on the other hand, inventions that do not solve a technical problem, such as a word processing program, are not generally considered patentable.

Amazon's 'one-click' patent - different rules in the USA

The situation in the USA is much more favourable for the granting of computer related patents. Specifically, inventive computer programs that are unrelated to mathematics,

pertain to the operation of hardware, or are employed as a component of an overall invention are all deemed to be patentable. There is no exclusion of business methods and Amazon's one-click patent is a well-known example of something being patented in the US that had difficulties in Europe.

To ensure patent protection it is important not to disclose the invention to the public before a patent has been filed; employee education of the risks of disclosure and the value of protection, is consequently of great importance. In-house invention monitoring schemes can help to flag up and protect inventions.

Patent protection for software - pejorative summary

US – Anything goes

Australia – Almost anything goes

Europe (EPO) – There must be a "technical effect", but this may be lurking within.

UK – Care is needed even to protect "technical" software.

What protection is most appropriate?

This is fundamentally a commercial rather than a legal question; protection strategies should be determined primarily according to the circumstances of an undertaking, including the market, competition, and ultimate business objective, within the legal constraints.

The market is important; if the market is particularly fast moving and new developments will be quickly superseded, patent protection that will normally take years to be granted may not be appropriate.

There are often cases where one or two players have a clear market lead. In most cases, competition is likely to increase over time, but the market position can be safeguarded, or upset, by strategic use of IP – the leading player has a head start from which to put obstacles in the way of others simply by protecting key developments, where possible. Conversely, a minor player with foresight to obtain protection for next generation product innovations can leapfrog the market leader.

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Protection strategies must be considered in terms of an undertaking's overall business plan. IP rights, and patents in particular, can become substantial long-term assets sometimes outstripping product sales from licensing revenue and their value is increasingly recognised by shareholders.

Last but not least, the likely value of protection should be realistically evaluated. It must be appreciated that some innovations in some countries are simply not easily protected; if the frank advice is that whatever protection can reasonably be expected can easily be worked around, large investments in protection may not be appropriate.

Open source Issues

Paradoxically, the open source movement relies, albeit loosely, upon intellectual property laws to promote its aims. The copyright that subsists in source code enables licensing which may insist that derivative code is kept open for other users – a prime example being the various GNU public licenses. Because open source rights generally subsist in all derivative code, once open source code has been introduced into a development system, it can spread in a viral manner.

When developing code it is therefore important to have processes to avoid contaminating the product unwittingly. Perhaps counter-intuitively, filing early and strategically for patent protection, where available, may be helpful if intending to release something (e.g. a new codec) as open source to make it more difficult for others to monopolise effectively what one wishes to release, as well as enabling one to retain selected aspects as proprietary.

Standardisation

Standardisation has benefits for developers in many (not all) markets. A common misconception is that ownership of proprietary IP and standardisation are mutually exclusive. The owner of a patent is not compelled to use that patent unreasonably, although it is not always easy to stop them, so it is better to be

that owner! It is generally considered that it is prudent when discussing standardisation with one's "friendly" competitors to file defensively in advance of discussions. Standardisation generally requires open licensing of relevant IP, but may permit a royalty, in which case being the owner of a key patent can be very beneficial. Often there are disclosure and other good faith requirements and care must be taken not to fall foul of these.

IP ownership: company or employee?

Organisations are often surprised when they find out that IP they had assumed that they owned is not in fact theirs. In Australia and Europe, patentable inventions that are produced by employees, and made during the course of employment, are owned by their employers. However, those produced by contractors are, unless otherwise stipulated, owned by the contractor. US law identifies the inventor as the owner and requires assignment if an employer or contractor for services wishes to register their ownership.

Copyright ownership is somewhat simpler: in Australia and Europe the situation is essentially the same as for patents, in the US copyright vests in the employer or contractor for services. Design right may be more complex, however.

Of particular relevance to developers are cases in which multiple parties have contributed to a work; in such cases the parties may jointly own the work. Ownership issues can be very difficult to resolve after the event. Attention to the IP provisions in employment and other contracts, together with housekeeping over assignments etc. can avoid these problems.

Conclusion and practical steps to remember

At the outset of any substantial piece of development, and at regular intervals thereafter, undertakings need to assess carefully what rights they have and what rights they may acquire. Potentially problematic rights of others should

also be considered, particularly if intending to release product in the US, where treble damages may be awarded for wilful infringement.

Decisions then need to be made as to what is appropriate to protect, and how to protect it, based on: budget, the likelihood of getting useful protection, the relevant market and the competition, and the undertaking's business plan. Housekeeping processes should be put in place to flag up innovations or third party issues early, avoid ownership issues, inadvertent disclosure, and contamination with open source material; as with many things prevention is much better than cure.

An IP strategy requires investment of internal and financial resource, and seemingly reasonable assumptions are more often than not dangerous. However an appropriate strategy can give rise to a very valuable asset, which in time can often become more valuable than the development work which prompted it. ❖

DEFINITIONS

patent (noun)

A government authority to an individual or organisation conferring a right or title, esp. the sole right to make, use, or sell some invention. [ORIGIN: Compare with letters patent.]

copyright (noun)

The exclusive legal right, given to an originator or an assignee to print, publish, perform, film, or record literary, artistic, or musical material, and to authorise others to do the same.

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More information about IP rights can be obtained from the Chartered Institute of Patent Attorneys in the UK.

www.cipa.org.uk