

Patents de Programari en Acció

<http://swpat.ffii.org/pikta/xrani/index.ca.html>

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Aquests últims anys, més i més casos de litigi de patents de programari es coneixen pels mitjans de comunicació. Però això és només la punta de l'iceberg. La major part de les empreses de programari i els desenvolupadors de programari són amenaçats fora dels jutjats i el silenci és part obligatòria d'aquest *arranjament fora del jutjat*. Molts projectes s'aturen o no comencen perquè el camp està abarrotat de patents. És difícil documentar camins de desenvolupament bloquejats. Aquí intentarem fer el millor que puguem.

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1 Some Well Documented Cases

- **HiFn PPP Stac compression¹**

The Stac compression scheme is one of many patented compression algorithms which severely impede interoperability between systems and, because of the sheer number of patents cluttering their field, are probably impossible to circumvent.

¹<http://swpat.ffii.org/pikta/xrani/stac-hifn/index.ca.html>

- **LZW compression: conjugations patented²**

The LZW data reduction method is moderately ingenious and moderately efficient. It was patented as US 4558302 and, against the letter and spirit of the written law, as EP 129439. Better solutions are meanwhile available, some non-patented. But due to the inertia of de-facto standards such as GIF, ZIP, PDF etc, the LZW patent it is still causing a lot of grief. It is as if the conjugations of the English language had been patented.

- **Lossy Compression (JPEG et al) patents³**

When creating, using or JPEG graphic files, you may be infringing on patents. Some extensions to JPEG are patented. Basic principles of coding used by JPEG are patented in the US and in Europe, and recently a new patent owner has started to aggressively assert his monopoly rights. The JPEG Consortium reacted quickly by delaring that JPEG is no longer a standard.

- **iPIX ./ Dersch: German Mathematician silenced by US patent⁴**

A German developper of free software has been persecuted by the US company IPIX for writing software for composing pictures into large panoramas using calculation rules which he had developped independently but which iPIX had patented in the USA. In June 2001 the conflict escalated. Prof. Dersch withdrew his software from the Net in order to evade a lawsuit which iPIX was, according to his knowledge, preparing in the US.

²<http://swpat.ffii.org/pikta/xrani/gif-lzw/index.en.html>

³<http://swpat.ffii.org/pikta/xrani/jpeg/index.en.html>

⁴<http://swpat.ffii.org/pikta/xrani/ipix/index.ca.html>

- **Lake DSP ./ Anders Torger: patentee threatents swedish free software**⁵

In early 2001, the Swedish audio software developer Anders Torger received a threat letter from *Lake Technology Limited*, demanding that he remove his free/opensource software from his website “within 48 hours”, because it uses well-known calculation rules (a “highly efficient convolution algorithm” in Lake’s words) which Lake claims to have invented and for which it is expecting to soon be granted a European patent (application 93914555.3 = EP0649578, entitled, “Digital Filter Having High Accuracy And Efficiency”, based on US 5,502,747). Although Torger had written nothing but a computer program as such, he was intimidated by the prospect of expensive litigation and therefore removed his software from the Net. Lake claims to have “invested millions of dollars in developing our technology”, but it seems that little of this, if any, went into developing the patented algorithm. Torger is even trying to prove that they were not the first to invent it. Armed with prior art proofs, he wants to put at least his source code back on the Net in defiance of Lake.

- **Xerox ./ Bulatov: tree visualisation patent inhibits optimisation research**⁶

A Patent of Xerox Inc has cause Prof. Bulatov to withdraw his open-source Java profile browser HyperProf from the Net. HyperProf has been very useful for analysing the optimisation potentials of programs. Its withdrawal from the research community is a loss both to the developing mathematician, his user community and the end users of the programs which are developed thereby. So far we do not know against which US patents HyperProf is claimed to infringe and what, if any, their EP equivalents are.

⁵<http://swpat.ffii.org/pikta/xrani/lake/index.en.html>

⁶<http://swpat.ffii.org/pikta/xrani/bulatov/index.en.html>

- **Ugly TrueType and OpenType Font Display thanks to Patents⁷**

Rendering of Fonts is ugly and slow on Free Software Systems. This is because when the TrueType standard was promoted by Apple and Microsoft, they held a few patents which they never asserted. The FreeType project has asked Apple to clarify the situation, but did not get an answer. Instead, fearful customers of Linux distributors such as SuSE and Redhat have demanded that any possibly infringing FreeType features be disabled on these distributions. TrueType is the dominating font standard and it is also a part of new standards such as OpenType, in which Adobe participates. Adobe also holds a few patents on which OpenType infringes. These formats must be supported if GNU/Linux/XFree users are to be able to use existing fonts on their platform of choice.

- **Flash Memory File Systems⁸**

It is not possible to port operating systems to certain new hardware, because the manufacturers have retained control by obtaining software patents. Intel has done this for some chips, and MSysms did it for flash memory. When people do write software, it cannot be free, if it can be published at all. In the whole area of memory programming it is very hard not to run afoul of some patent. This is deterring programmers.

⁷<http://swpat.ffii.org/pikta/xrani/ttf/index.ca.html>

⁸<http://swpat.ffii.org/pikta/xrani/msys/index.ca.html>

- **MPEG-related patents on compression of acoustic data**⁹

Acoustic compression requires knowledge of auditive perception, which had to be acquired through experimentation. Thus this field is close to the borderline of technical inventions which could be patentable. Yet most of the research results were published in the 60s and 70s, and the patented processes based thereon are pure informational processes, some of them quite basic and trivial, when viewed against the background of available theoretical knowledge. The whole field of audio compression is cluttered with dozens of basic patents, thus making it very difficult to develop alternatives. Ogg Vorbis seems to have succeeded in developing patent-free audio compression, but is being threatened by the patent holders, who have formed various consortia such as MP3 and MPEG2. In order to develop free software for MP3, one must pay an upfront payment of 1 million USD. Otherwise money must be charged per copy, thus barring the possibility of opensource development. Moreover, recently MPEG-LA, a consortium of MPEG patent holders, also proposed charging fees from content producers.

- **ASF: changing copyright rules by means of patents**¹⁰

Microsoft has prohibited a Free Software programmer from writing import/export filters for its Advanced Streaming Format (ASF). The programmer wanted interoperability with a format that Microsoft is promoting. But for Microsoft, interoperability is in this case doubly disadvantageous: besides reducing the lock-in effect, on which Microsoft's platform strategy relies, it also can circumvent the locks on unauthorized copying, by which Microsoft wants to attract content providers to its ASF platform. Whereas in the DeCSS case a court ruling was necessary to enforce new draconian copyright provisions of the highly disputed Digital Millenium Act, in the ASF case a simple patent suffices to achieve the same legislative goal.

⁹<http://swpat.ffii.org/pikta/xrani/mpeg/index.en.html>

¹⁰<http://swpat.ffii.org/pikta/xrani/asf/index.ca.html>

- **Dolby Standard tolerates no OpenSource implementation¹¹**

Under threat from a group of patent holders, an attempt to develop open source software to support the Dolby audio standards had to be scrapped in March 2001. The patent holders want a licence fee for each copy distributed. This excludes publication of source code on the Net and thus makes it impossible to develop surrounding infrastructure in an open and secure manner.

- **Vermessungsämter mauern Geodaten durch Datenformat-Problempatent ein**

Die Deutschen Landesvermessungsämter haben eine Kartenreihe namens "TOP50" mit kartographischen Karten von Deutschland im Maßstab 1:50000 (1 Pixel = 5x5m) auf CD veröffentlicht. Zur Anzeige der Karten enthalten die CDs eine Software von "EADS Dornier GmbH" namens "geogrid". Das Dateiformat ist nicht dokumentiert aber patentiert. Ein Widerspruch? Nein, nur eine normale profitable Kombination.

- **PSOLA: speech generation patent of France Télécom¹²**

The PSOLA patent of France Telecom has prevented the speech generation system MBROLA from becoming free software.

- **One-Click Shopping: litigation turns out unexpected real owner¹³**

Amazon (internet bookstore) received a US patent on reducing the need for data input in case of repeated ordering through a network like the WWW. Based on this patent, Amazon sought an injunction against a competing bookstore. Amazon had applied for the same patent at the EPO under EP0902381 in Sep. 1998 under the name "Method and system for placing a purchase order via a communications network". By the time a search report was issued by the EPO, this patent had already aroused an uproar in the USA, leading to the discovery of a lot of prior art. Under the impression of these facts, Amazon refrained from further pursuing the patent application at the EPO. Meanwhile it has turned out that the One-Click technique is "owned" by a subsidiary of Thomson Multimedia, which had obtained a similar patent a few years earlier.

¹¹<http://swpat.ffii.org/pikta/xrani/dolby/index.en.html>

¹²<http://swpat.ffii.org/pikta/xrani/mbrola/index.ca.html>

¹³<http://swpat.ffii.org/pikta/xrani/1click/index.en.html>

- **Adobe threatening software creators in US and EU with Palette Patent¹⁴**

In summer 2001 Adobe attacked Macromedia for infringing on its US patent no 5546528 which lays claim to the idea of adding a third dimension to menus by grouping them as tabbed palettes one behind the other. The European Patent Office (EPO) has illegally granted EP0689133 with exactly the same set of claims and priority date of 1994-06-23 on 2001-08-06, after five years of examination period. Many programs, including free software such as The GIMP, infringe on this patent and will therefore be at the mercy of Adobe, if the EPO's practise of granting software patents is made enforcable by a Directive from the European Commission.

- **Pause Technology¹⁵**

In 2001-10, a patent company called Pause Technologies started suing digital television companies based on claims to the idea of buffering digital data in order to allow the user to stop or retard a transmission and catch up later. We have not yet ascertained the status of the US patent RE36801 or its possible European counterparts. Below are some guesses and links.

- **Onion Router: US Navy patents Anonymous Surfing¹⁶**

In 2001/07 the US navy received patent US 6266704 for the principle of arranging public key encryption in several layers so that identities are concealed. Colleagues of the patentee say that they are very surprised at this sudden move of one of their peers who apparently succeeded in obtaining a patent on largely known methods. The patent covers large problem fields and leaves little free room for development of anonymous communications. Some experimental endeavors (without the deep pockets of commercial enterprises) are under threat, with a great potential impact on how people are able to communicate. We have yet to find out whether this patent has been filed in Europe.

¹⁴<http://swpat.ffii.org/pikta/xrani/palette/index.en.html>

¹⁵<http://swpat.ffii.org/pikta/xrani/pause/index.en.html>

¹⁶<http://swpat.ffii.org/pikta/xrani/anon/index.en.html>

- **RSA & Schnorr stifle cryptography-based e-commerce**¹⁷

After widespread use of cryptography had been impeded for years by patents like that on RSA, finally an alternative was found that seemed to be available for free use by the public. But just at that moment, Professor Schnorr from Germany asserted that this free cryptography scheme infringed on his recently obtained crypto patent. The licensing rights of RSA and the Schnorr patent were later exclusively acquired by PKP. PKP harrassed crypto programmers by claiming that “These patents cover all known methods of practicing the art of Public Key, including the variations collectively known as El Gamal”.

- **BT Hyperlink Patent**¹⁸

British Telecom in the 70s and 80s filed patents in the US on the concept of cross-references in hypertext. In 2000 BT discovered one of these “Rembrandts in the Attic” (US 4,873,662) and decided to use it for squeezing money out of internet access providers. Litigation is beginning in 2002-02.

- **Rozmanith: Using software patents to silence critics**¹⁹

In autumn 2000 TechSearch Inc, a company specialising on acquiring and exploiting patents, sued Gregory Aharonian, a vocal critic of “bad patents” owned by TechSearch, for alleged infringement of one of these “bad patents”, the Rozmanith patent on compressing data transmitted from web servers. They also accused Aharonian of slandering TechSearch, the patent office and the United States government. But they failed to point out how Aharonian had infringed on their patent. Apparently anyone who operates a web server infringes, and it is up to TechSearch to select victims. Aharonian is the first individual Linux user to be sued for patent infringement.

¹⁷<http://swpat.ffii.org/pikta/xrani/schnorr/index.ca.html>

¹⁸<http://swpat.ffii.org/pikta/xrani/hyperlink/index.ca.html>

¹⁹<http://swpat.ffii.org/pikta/xrani/rozmanith/index.ca.html>

- **OpenMarket asserts Network Sales System monopoly against Inter-shop²⁰**

On 2001-01-09, Open Market attacked Intershop, the largest Germany-based shopping application company, for violating its patents on a network sales system on the US market. Meanwhile the patent applications of OpenMarket are looming around at the EPO waiting to be granted.

- **No more WWW indexing without permission from CMGI?²¹**

In Jan 2001, the CEO of CMGI, the company that currently owns Altavista, explained: “Altavista owns 38 patents, many of which we think are fundamental in the search area. They were the first to spider and index the Web. ... And we have another 30 patents that are in application. So we believe that virtually everyone out there who indexes the Web is in violation of at least several of those key patents.” and made it clear that he will go to court in early 2001 to maximize revenues from those patents.

- **Patent on searchword-based hyperlinking encumbers W3C XPointer standard²²**

In Jan 2001 people at the World Wide Web Consortium (W3C) found that their new generation of hypertext markup language was infringing on a patent from Sun Microsystems. By a decree of the US patent office, Sun has become the owner of the idea of adding a search word to a link in such a way that the browser will scroll to that word. The development of the XPointer concept of the XML standard seemed in jeopardy. Sun’s license terms are quite generous: they require than any competitor using this concept obliges himself in return to publish the concepts that he builds on it. Thus Sun supplies the W3C a weapon against “embrace and extend” tactics. But even if based on good intentions, this requirement may restrict the development of the new standard, and people at the W3C experts question whether a trivial software patent really gives Sun the right to impose such restrictions.

²⁰<http://swpat.ffii.org/pikta/xrani/openmint/index.ca.html>

²¹<http://swpat.ffii.org/pikta/xrani/altavista/index.ca.html>

²²<http://swpat.ffii.org/pikta/xrani/xpointer/index.ca.html>

- **RDF: web standard threatened by basic patent**²³

In 1997, with priority date 1994, an obscure canadian software company received a european patent on a basic information processing method, namely the idea of describing information by hierarchies of binary relations. In 1999 a communication protocol called Ressource Description Framework (RDF) was adopted as a web standard. In 2001, when some software applications gradually became available, a license collecting company started enforcing the patent, as a first step threatening 50 companies with infringement litigation.

- **SOAP & Co**

- **Internet Telephony: no voice over IP**²⁴

Leading experts consider it impossible to create free or independent software for Internet Protocol (IP) Telephony during the next 15 years. The reason is “intellectual property” (IP): the field is cluttered with compression patents which not only cover almost all possible compression algorithms but also standards with which any implementor must comply. This way the telephone companies can stifle innovation and keep their monopolistic grip on the field of telephony. Nevertheless people are trying to establish patent-free alternatives.

- **Microsoft bars GNU software from interoperating with CIFS**²⁵

During the 1st week of April 2002, Microsoft published a license for its new specification CIFS which it is trying to establish as a de facto communication standard. This license says that free software under GNU GPL, LGPL and similar licenses may not use CIFS. It bases this ban on two broad and trivial US patents with priority dates of 1989 and 1993. Preliminary search results suggst that these patents to not have EP (European Patent) counterparts. But there is nevertheless an EP patent which could possibly be used by MS for the same purpose. Critical network infrastructure such as Samba as well as new projects such as Mono seem to be affected.

²³<http://swpat.ffii.org/pikta/xrani/rdf/index.ca.html>

²⁴<http://swpat.ffii.org/pikta/xrani/voip/index.en.html>

²⁵<http://swpat.ffii.org/pikta/xrani/cifs/index.en.html>

- **WWW standardisation mined by patents**²⁶

Several standardisation proposals of the World Wide Web Consortium W3C have hit patent mines, and the W3C has been struggling to define policies for dealing with the patent danger. A group of large patent owners has tried to push the W3C to accept uniform-fee-only (UFO, also euphemistically called RAND = reasonable and non-discriminatory) standards, i.e. standards that can be used by any software vendor as long as the software is under a license which facilitates fee collection, thereby excluding open source software and shareware. After massive protests in late 2001 the W3C abstained from this policy, but it is frequently coming back in other clothing, partly because without satisfying patent owners the W3C is finding it difficult to come up with any viable standard proposals at all for some application areas.

- **3D Graphics under GNU/Linux besieged by MS patents**²⁷

Former SGI patents have changed owners, making 3D graphic processing under GNU/Linux dependent on the mercy of Microsoft. Microsoft's terms are not yet quite clear, but they appear at least to be forcing a change of license terms away from the GNU GPL.

- **RealTime Linux's patent trouble**²⁸

The Linux kernel is normally not laid out for operation under fixed time limits. In order to turn Linux into a real-time operating system, certain additional programming rules are needed, some of which have been patented. Although the patentee granted a friendly license, this has created insecurity and inhibited commercial deployment of RT Linux. Fortunately people have meanwhile found a way around the patent.

²⁶<http://swpat.ffii.org/pikta/xrani/w3c/index.en.html>

²⁷<http://swpat.ffii.org/pikta/xrani/opengl/index.en.html>

²⁸<http://swpat.ffii.org/pikta/xrani/rtux/index.en.html>

- **OCS ./ HIT: Geometry Patent Stops Shareware Project**²⁹

Oberthur Card System applied in 1999 for a patent on a method of geometry (point-halving in elliptic curves). In Oct 2001, the Oberthur's legal department sent a cease-and-desist letter to Marcel Martin, French informatics student and author of the shareware library HIT, in which it asked him to "immediately stop marketing your product". Which he did, although the legal status of Oberthur's patent claims particularly in Europe is very unclear. We have published a few lines of code which, according to Oberthur's letter, seem to be infringing on the patent. Martin commented "I had to stop this project, because I cannot afford to pay an army of lawyers every time someone wants to impose conditions on my work. Software developpers react very sensitively to this kind of terrorism. If European politicians legalise software patents in Europe, that will work as a disincentive to software production in Europe".

2 Enllaços anotats

Malauradament, encara estem observant una pila de casos pobrement documentats o no-publicables, com ara

Si coneixes algun cas, sisplau [?\(pi:informa'ns\)!](#)

...

²⁹<http://swpat.ffii.org/pikta/xrani/ocshit/index.en.html>