

INTERNATIONAL CHARACTERS

Patent-Based Dual-Licensing Open Source Business Model

Rob Cameron, president of International Characters and professor of computer science at Simon Fraser University in Canada, has invented new technology that, among other things, dramatically improves performance in processing character streams, for example doing transcoding and other XML processing. We're convinced that many companies will want to practice this patent-pending technology in both software and hardware because of the very large performance improvement that can be achieved in many important areas of computing (among other advantages, including significant energy savings).

Dr. Cameron's new methods are examples of the kinds of invention that the patent system was intended to reward, and we have filed several patent applications on them. We are also submitting our patent applications to Community Patent Review because we believe this process will rigorously test the quality of our patent claims before patents are actually issued.

We founded our company, International Characters, to commercialize these inventions under a licensing model that supports open source and encourages more invention by others. Information on the philosophy guiding our model can be found at Professor Cameron's website, www.cs.sfu.ca/~cameron/tech-transfer.html.

Our philosophy is related to, but broader than, that of free and open source software. It seeks to achieve synergy between three systems of technology knowledge development:

1. The academic enterprise, primarily universities and research institutions, dedicated to the advancement and dissemination of knowledge.
2. The patent system, intended to "promote the progress of science and useful arts" by securing for inventors a time-limited exclusive right to their discoveries.
3. The free and open source software ecosystem that embodies knowledge in the form of software source code and makes that source code available for anyone to use, study, modify and redistribute on free and open source terms.

We have created a new licensing and business model to help accomplish these broad objectives and to serve as an example for academic and other researchers seeking to commercialize their patentable work. We will publish our discoveries in academic papers and through participation in Community Patent Review, thereby applying the rigorous practices of peer-reviewed academic research to the dissemination of patentable software knowledge. We will distribute to the public, under open source licenses, software that embodies our patented inventions, and we will seek to encourage those who improve our software to do the same. We will encourage the creation and distribution by others of free and open source software that embodies our patents without fear that we will sue them for patent infringement. And at the same time, we will implement a licensing model that allows inventors and authors, and the universities and research institutions that sponsor them, to profit when their patented inventions and copyrighted works are used in commercial and proprietary products and activities.

The mechanism we use to implement our philosophical and business goals is a Covenant Not To Assert. Here's the text of the current draft of the Covenant:

INTERNATIONAL CHARACTERS

Covenant Not To Assert

International Characters, Inc., on its own behalf and on behalf of its successors in interest, irrevocably covenants that, subject solely to the Reciprocity Requirement below, it will not assert or enforce any rights in any claims in its Canadian, U.S., or foreign patents, including the right to assert contributory infringement, inducing infringement, or willful infringement, against anyone because of:

- (1) the making, use, sale, offer for sale, importation, licensing or distribution of open source software; or
- (2) the making or use of software or hardware for experimentation, research or teaching.

This covenant does not apply to the making, use, sale, offer for sale, importation, licensing or distribution of any software, hardware, or combination of software and hardware, other than as specified above.

The term “open source software” in this covenant shall mean software actually distributed to the public under software licenses that have been expressly approved by Open Source Initiative or the Free Software Foundation as of the date of this covenant, and that provide that every licensee is free to make copies of the software or derivative works thereof, to distribute them without payment of royalties or other consideration, and to access and use the complete source code of the software.

Reciprocity Requirement: Notwithstanding the commitment above, this International Characters covenant shall not apply and International Characters makes no assurance, covenant or commitment not to assert or enforce any or all of its patent rights against any individual, corporation or other entity that asserts, threatens or seeks at any time to enforce its own or another party's Canadian, U.S. or foreign patents or patent rights against any software distributed by International Characters.

This statement is not an assurance either (i) that any of International Characters issued patents cover any particular software or hardware or are enforceable, or (ii) that any particular software or hardware would not infringe patents or other intellectual property rights of any third party.

No other rights except those expressly stated in this covenant shall be deemed granted, waived, or received by implication, or estoppel, or otherwise.

Dated: DRAFT September 10, 2006

Consider the effect of having patented technology that is subject to the International Characters Covenant embodied somewhere in open source software. Anyone who receives that software (licensed under any free or open source license) can do those things with it that its open source license allows, subject to the normal licensing terms

and conditions. They can also make, use, sell, offer for sale, import, license and distribute that open source software subject to item 1 in the Covenant. But as made explicit in the paragraph beginning "This Covenant does not apply....," item 1 applies only to software, not to combinations of software with hardware, and this means that there are circumstances when the open source license alone doesn't suffice. This is one of the ways we give effect to the broader philosophical goals we described above.

The interesting verb in the list in item 1 is "use." In order to use open source software, a user must necessarily combine it with hardware. The way this is reconciled with the exclusion of combinations is to distinguish between the "use of open source software" and the "making, use, sale, [etc.], of a combination...." When the product is just open source software from a software distributor, and the combination with hardware is made by a user in order to use the software, the combination is allowed. But products that are a combination of hardware and software are excluded from the Covenant.

It is this feature of the patent law and our Covenant that allows us to collect royalties from OEMs who combine patented open source software with hardware and sell that combination.

As for capturing internal commercial modifications, consider the effect of the "actually distributed to the public" phrase in our definition of open source software. A company, just like an individual sitting in his bedroom somewhere, can be an end-user of open source software, and is authorized by our Covenant (item 1) to use it. But if that company makes any modifications, the resulting software must be "actually distributed to the public" in order to still be "open source software."

Of course, the Covenant also allows "experimentation, research and teaching." Companies and individuals are free to modify their open source software in private to develop new applications, but once they put that patented software into production, they must seek a patent license from us. This would be true even if the patented software were originally licensed under the BSD or Apache licenses; those licenses still control for the copyrights and other intellectual property rights they license, but our Covenant controls for International Characters' patents.

Meanwhile, the International Characters Covenant also excludes proprietary software and hardware embodiments of our patents. Those are obvious places to collect reasonable royalties based upon the value-add of our patented technology.

Our open source partners can implement International Characters' patents not only for the improvement in performance this new technology brings to their software, but also to obtain licensing revenue for the commercial uses of their products in the same ways and at the same time that we do. We welcome such business partnerships. This is another way the International Characters Covenant supports open source with patents.

Because ours is a patent Covenant and not a copyright-based software license, we strike a different kind of bargain with developers, distributors, and customers than is traditionally done with free and open source licenses. We make freely available all of our patent claims (even those you don't yet know about) for open source implementations, and not simply "necessary claims" for our software at the time we actually distribute it (contrast our Covenant with GPLv3 § 11 and Apache 2.0 § 3). We also let everyone embody our patent claims in any software distributed under any free and open source

license, thus not limiting people to creating derivative works of some original software we created and distributed under an open source license we selected (contrast this with every copyleft license approved by FSF or OSI; to address the proliferation of those incompatible licenses, we created a Covenant that applies to all licenses). And we require that free and open source software be "actually distributed to the public," thereby extending copyleft (reciprocity) to include secret modifications that are not themselves free software; you will notice that this effect applies under our patent Covenant for any open source software that embodies our patents, even software distributed under the Apache or BSD licenses!

We are in the process of initial consultation with leaders in the open source community about our legal and business model. We would certainly like to have community feedback too. We are also preparing technical disclosures of our underlying patent-pending methods in the form of open source software and documentation. We intend to coordinate those with the processes of Community Patent Review.

This Covenant-based business model may not be entirely consistent with the models of some existing free and open source projects. We already mentioned the effect on the Apache and BSD licenses above, but there are also differences with the current GPL. For example, the current GPL does not require the disclosure of secret internal modifications of free software that are put to commercial use; the IC Covenant requires public disclosure of those secret modifications or a separate commercial license from IC. The language of § 11 of draft 2 of GPLv3 seems to make GPLv3 compatible with this aspect of the IC Covenant, but this may simply be an inadvertent consequence of the latest wording of their license. We have already started discussing this with Richard Stallman and others, but until that license settles into final form we can't be sure.

We don't believe these differences are incompatibilities. As you know, patents are in a different legal dimension from copyrights. You may infringe them inadvertently, and still you may be forced to pay royalties or cease use altogether. You may suddenly discover patents owned by third parties to a software licensing transaction, companies that ambiguously announce that they have (or will someday have) patent claims that can be implemented in software. On the other hand, International Characters offers to take all our patents out of the zone of risk altogether for free and open source software, and we simultaneously implement a business model that generates revenue from certain commercial uses of our patented technology. This revenue model will reward other open source companies that elect to implement our technology, as well as the scientist who made these inventions, our shareholders, and the university out of which we grew.

We welcome feedback on this new patent-based dual-licensing model. Please send your inquiries about the business and legal model to Lawrence Rosen, lrosen@rosenlaw.com.

If you wish to discuss our patent activities, contact Michael Einschlag, mbeinschlag@rosenlaw.com.

If you want to learn more about our technology and to explore collaboration, please address your inquiries to Rob Cameron, rob@international-characters.com.