

Open Source, Open Standards

**OPEN MINDS**

# IPR Polices and Open Source How can they work together?

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# How Will Open Source and IPR Policy Support the ANSI Mission?

## Mission

- To enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.
- [http://www.ansi.org/about\\_ansi/overview/overview.aspx?menuid=1](http://www.ansi.org/about_ansi/overview/overview.aspx?menuid=1)

# 98 Years of ANSI History

## How Will Open Source Affect the Record?

ANSI facilitates the development of American National Standards (ANS) by accrediting the procedures of standards developing organizations (SDOs). These groups work cooperatively to develop voluntary national consensus standards.

Accreditation by ANSI signifies that the procedures used by the standards body in connection with the development of American National Standards meet the Institute's *Essential Requirements* for openness, balance, consensus, and due process.

[http://www.ansi.org/about\\_ansi/introduction/introduction.aspx?menuid=1](http://www.ansi.org/about_ansi/introduction/introduction.aspx?menuid=1)

# What Value Does the IPR Policy Bring to Standards Development?

The adoption by standards organizations of clear and concise IPR and patent policies that are readily accessible can also help ensure that all interested parties are aware of the standards setting organizations' position on these issues.

Furthermore, policies that balance the rights of IPR holders together with the rights of those seeking to exercise them will help engender greater trust and fruitful interaction between all interested parties.

[http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga\\_072332.pdf](http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_072332.pdf) From Conclusion of NIST paper on how IPR Policies affect the development of Nanotechnology.

# There Are Multiple Economic Actors Involved with Standards.

The results of the study suggest that there is a major difference of perspective between those in industry who participate in standards development and those who do not. The former appear to be future-focused and committed to developing the means to communicate accurately about the many applications and risks associated with nanotechnology despite the near-term net costs required to do so. It appears that the latter and much larger group of non-SDO participants (“free riders”) are satisfied, strategically, to reap considerable near-term net benefits from SDO participants’ investments without a commensurable contribution to SDO development; possibly cannot afford to position themselves with respect to important practical matters that are being advanced by the SDOs; or, perhaps, are convinced that active participation in SDOs entails no significant strategic advantage.

<http://gsi.nist.gov/global/docs/pubs/EconomicImpactNano.pdf> Study on Economic impact of Early Stage Nanotech Standards based Consensus Building

# Enabling Balanced Consensus to Encourage Participation is Essential to the Mission

- Inventors want to create a RAND-licensed Spec with their inventions - funding to invent.
- Implementers want to create products, cheaply, quickly, and of assured consistent quality their customers want.
- Developers of Open Source software want to ensure that they have access to and can share code.
- Some want ability to fork a design for each implementer ecosystem.

# Open Source and Standards Goals Diverge. Let's Think About What Supports the ANSI Mission.

## Look to the goal.

- Fast development?
- Open code/crowd sourcing/free IPR?
- Consensus democracy or bottom up “meritocratic” choices as to the ready to implement design choices?
- Getting a cheap technology development team for the implementers who capitalize on others R&D (outsourcing)?

# The Development Models Are Different.

- It's not really hybridization.



OS Code and Documentary Specifications travel separate development paths which do not cross, but can interweave, to create solutions for creators and implementers, and even OS communities in a complementary environment.



# What is Needed to Support OS Development?

- A repository for the code
  - Rules for contributions (CoA/SOB or CLA?)
  - A shared and compatible outbound license
  - Shared Ownership? (Who can enforce Copyright rights?)
  - Maintainers, Developers, tools and other infrastructure, security, and associated costs
- ❑ These are not native considerations for SSOs

# IPR Policy vs. Open Source License?

- IPR Policy - from the perspective of those who have IPR - is a fundamental safety net for working together on an SSO Specification.
- From the implementer's perspective, it promises the ability to use SEP IPR, forcing participating holders to declare their intent to license.
- OS Licenses can impose their own IPR regimes.

# Can OS Software Licenses Facilitate Standards Development?

- Are there particular reference designs, APIs, or other interworking components that have to match up that must be implemented in software?
- Will the Standard be useful if the code drifts in design over time?
- Can the Software development simply be an adjunct to the IPR-obligated Standard?

# Models for OS Software Fitting In

- Forms where Standards and Open Source can exist in harmony.
  - Leading Specification, trailing Code
  - Trailing Specification, leading Code
    - Different layers in the stack may have different IPR regimes
  - Adoption of reference design Code into a Standard
- But it depends on whether the software is part of the Specification/Standard, and whether it has a compatible license to the IPR Policy.

# So, What is the Risk?

- There is a risk that the OS license may have over-inclusive patent clauses, inconsistent with what has been a successful IPR Policy.
- This leaves technology developers with Patent rights to protect their business model or to license at risk, and less willing to contribute to a standard.
  - Will shrink the contributor ecosystem
  - make cheaper FRAND licenses less available at the margins
  - damage the standards development ecosystem

# Let's look at an OS License Example.

- Even though the Apache license is not compatible with major open source licenses GPLv2 (Linux) and LGPLv2.1, it is a popular choice.
- Apache license creates added complexity when you already have an IPR policy – precisely where you need high clarity
  - IP rights holders must already guard against IP leakage and provide disclosure through specification development process
  - Now they must do so through code contributions as well
- Runs counter to objective to quickly create a documented specification.
- Additional administrative overhead: Apache projects typically have a corresponding contribution agreement
- Apache's patent retaliation provision (any patent suit v. the Work or any Contribution causes loss of all other's licenses to you)– is that consistent with SDO policy?
- What is a “Work”? And how does it apply to limited contributions?

**Issue:** under Apache 2, Contributors grant patent rights to their Contribution - and combinations of the Contribution with the Work - but the scope of Work is ambiguous.

**Relevant Question:**

If one modifies File Alpha (see red box below), what is the “Work”?

Is it code in all SDO-managed projects that are licensed under Apache 2? Probably not.

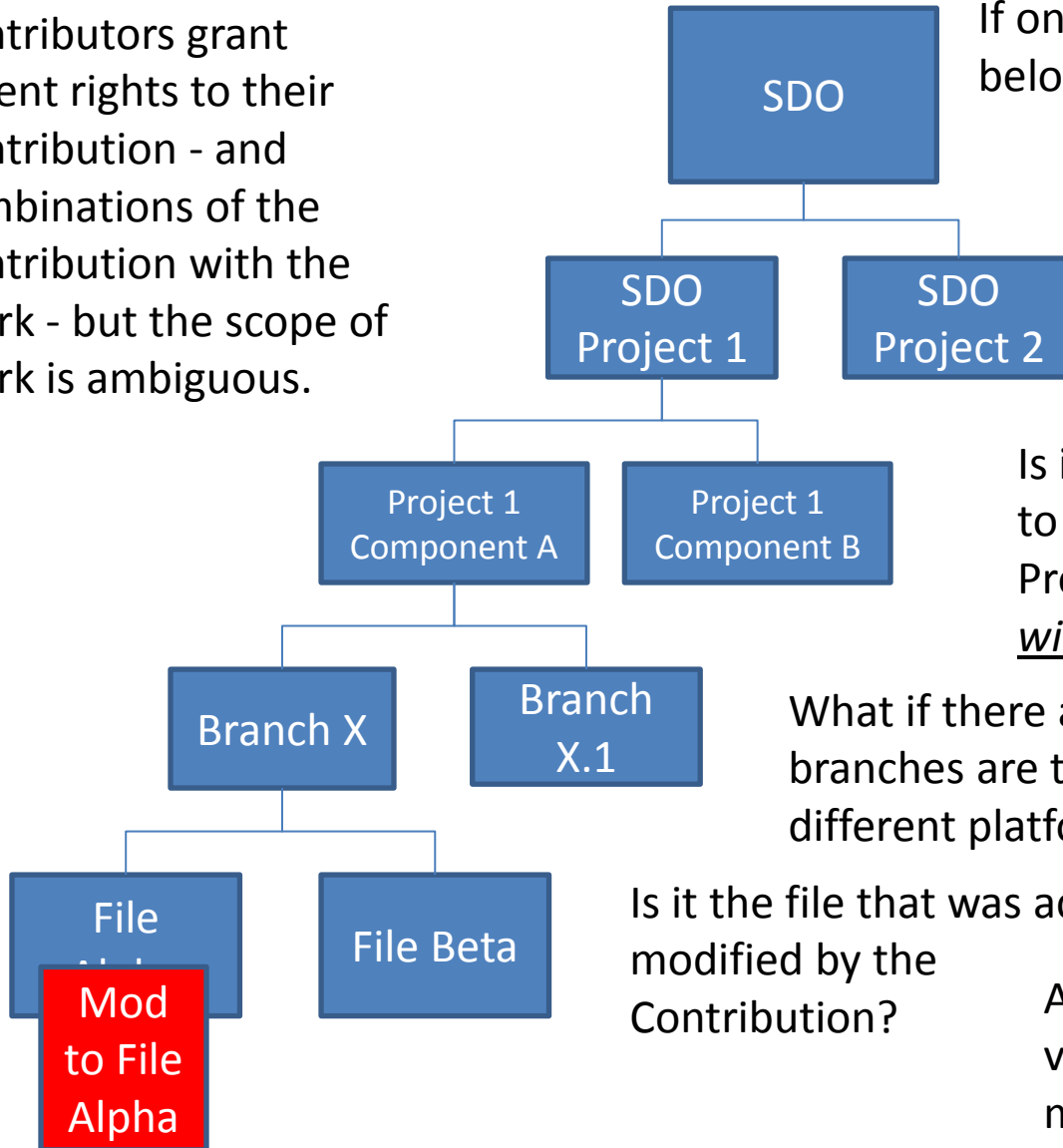
Is it all code in Project 1? Is it designed to work with another project? What if Project 1 is designed to be compiled with Project 2?

What if there are different branches are targeted at different platforms?

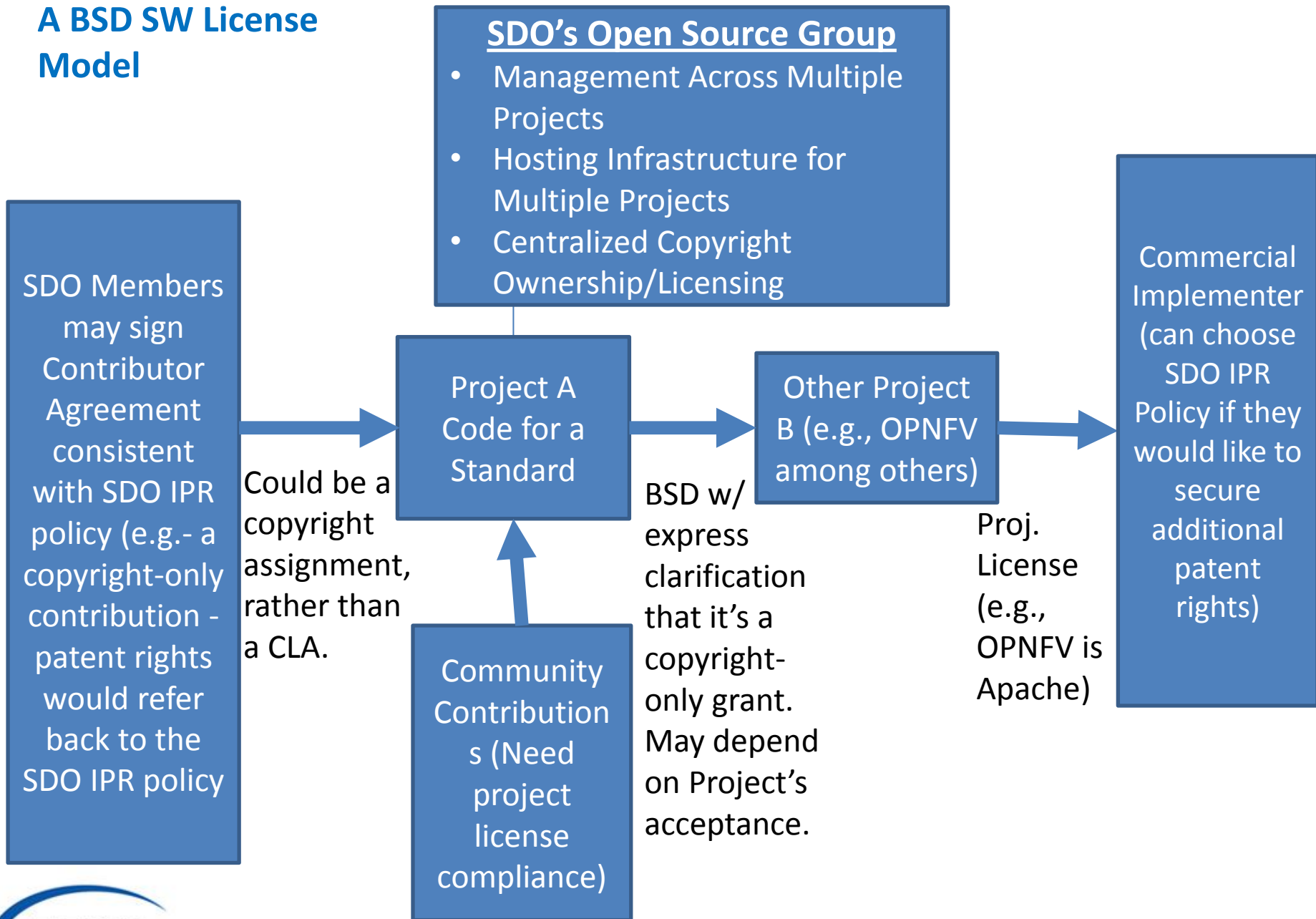
Is it the file that was actually modified by the Contribution?

Additional issue: what about future versions? As the Work gets modified, to what extent do patent rights (if any) carry forward?

Build 1.0 → Build 1.1 → Build 1.2 → Build 2.0



# A BSD SW License Model





# End