

Distribution of Software

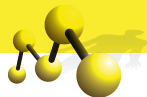
Luis Pedro Coelho

Programming for Scientists

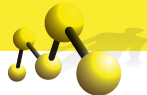
September 16, 2012



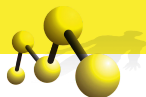
Why Make Your Software Available?



- You **want** to.
- You **have** to.

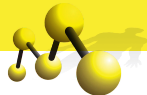


What is open-source?

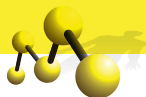


Wikipedia-level introduction to intellectual property:

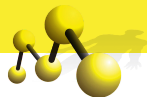
- ① copyright
- ② patent
- ③ trademark



A license is a **loosening** of the default “All Rights Reserved” framework.



- ① Public-domain
- ② BSD or MIT licenses
- ③ GPL (copy-left)
- ④ ...(10 million others)

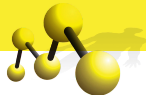


I can do whatever I want.



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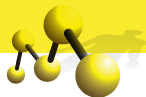
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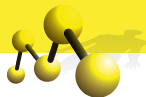
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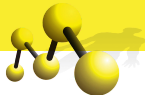




<http://www.gnu.org>

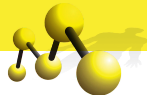


- Free as in beer (gratis)
- Free as in speech (libre)

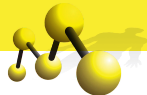


You can distribute & modify the software as long as

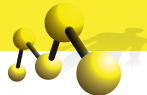
- you make the source code available,
- you license your modifications under the GPL.

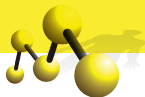


You can use BSD licensed code in a GPL.
BSD is **GPL compatible**.

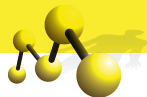


If you write a library and release it under the LGPL,
then closed-source programs can use it.





- Think about your license
- Pick either BSD/MIT, or GPL, or LGPL
- Be careful about code re-use



- Creative Commons.
- GFDL
- ...



Restrictions

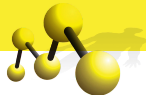
- **Attribution** [By] you need to state the source
- **Non-Commercial** [NC] you cannot use it for commercial purposes
- **Non-Derivative** [ND] you may not modify the work
- **Share-Alike** [SA] you must license your derivative works similarly

Mix & match to get a license, e.g., By-NC-SA.

How do you actually distribute your software?

- Put it on your home page
- Put it in PyPI (Python Package Index)
- Use a service like [sourceforge](#), [google code](#), [launchpad](#), ...

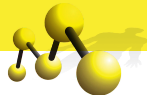
Distributing Software: setup.py



```
import setuptools
long_description = '''...'''

classifiers = ['Development Status :: 2 - Pre-Alpha',
               'License :: OSI Approved :: MIT License',
               'Programming Language :: Python',]

setuptools.setup(name = 'Particles', version = '0.1',
                 description = 'A Task Based Framework',
                 long_description = long_description,
                 author = 'Spring 09 Class of 98111 (CMU)',
                 author_email = 'lpc@cmu.edu',
                 license = 'MIT', platforms = ['Any'],
                 classifiers = classifiers,
                 url = 'http://code.google.com/p/particles/',
                 packages = setuptools.find_packages(exclude='tests'),
                 )
```



Python Package Index