Software licencing:
UCSC Genome Browser

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UCSC Genome Browser

Database + files: ~40 Tb
web site: 1 million hits per day
~200,000 regular users
~400 known mirrors
- 7,000,000 hits a week.
- ~200,000 regular users.
Genome Browser Licenses

Genome Browser mirrors

Genome Browser in a Box (GBiB)

Sold to commercial entities

Free for academic use
License: how decide to sell?

open-source project, but companies were trying to commercialize genome annotation, so it made sense to capture some of that income if they planned to capitalize on UCSC software
Licenses: how many?

several
License: significantly fund the group?

NO – The license money goes to the authors, HHMI and the University, not the project

Project has ~ 200 FTE-years of effort in it – even if the money came the project, would not be “significant”.
License: unauthorized use?

Yes – anecdotally

Have considered making detection possible, but that costs time/effort as well
License: does charging for software deter adoption?

Probably – though some are probably doing it clandestinely
License: do we treat licensees differently?

Yes, slightly. They pay for support. And our QA staff know who they are and give them slightly faster response.
License: other effects?

We do receive individually a small royalty from license fees – given to us by the original authors for contributing to updates and new development. This is a morale booster in the face of years of no raises from the University.
Code Documentation and Maintenance

It is important to use code that is well supported. Many programs are written by grad students or postdocs who move on – leaving behind code that works until something in the pipeline changes.
Linkage Disequilibrium

YRI

CEU

JPT+CHB

Haploview software
No longer works
Linkage tracks now only on hg18

chr1:151,171,924-151,293,990
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UCSC Browser team

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