



A Roadmap for Open Sourcing



Roadmap for Open Sourcing

- Ask why you're open sourcing
- Understand the constraints
- Understand the required scope and timescales
- Select an appropriate licensing model
- Decide on a deployment mechanism
- Setup a structure for ongoing support and training requirements
- Stakeholder management
- Develop a communications plan
- Do it



Case Study – IHTSDO Workbench

- An PC based application, that can be linked to a central collaboration area (called the *IHTSDO Workspace*).
- Functionality includes:
 - Authoring and review of **SNOMED CT** healthcare terminology
 - Reasoning over the terminology (using a **Classifier**)
 - Mapping functionality (from SNOMED CT to other coding systems)
 - Automation and workflow support
 - ... and more
- The tool incorporates many existing open source libraries, and some commercial libraries.



Asking Why

- Possible reasons for open sourcing include:
 - To encourage collaborative development of the application.
 - To encourage commercial add-ons or enhancements.
 - To make the application independent of the owning organisation.
 - Because your stakeholders wish the code to be made available to other bodies.
- Possible reasons not to:
 - The application is generating a revenue stream.
 - It gives you a competitive advantage.



Asking Why (Case Study)

- Key reasons for Open sourcing the IHTSDO Workbench:
 - To encourage collaborative development of the application.
 - To encourage commercial add-ons or enhancements.



Understanding the constraints

- Possible constraints include:
 - Minimising the up-front cost.
 - Ongoing administration should be cost neutral or better.
 - Solution should be simple to implement and administer.
 - There may be constraints imposed by incorporated software.
 - There may be commercial software incorporated in the application.
 - There may be embedded content within the application. If so, you need to decide if that should be open sourced as well.



Understanding the constraints (Case Study)

- The solution should be simple and cost effective to implement and administer.
- There were constraints imposed by two incorporated software libraries:
 - Berkley database – either commercial or open source license models.
 - Classifier – must be open source (Apache2 or EPL) to distribute application.
- There were two commercial libraries incorporated in the software:
 - An Icon library
 - A Subversion access library
- There was embedded content in the application:
 - SNOMED CT, clinical content: which should not open source.
 - SNOMED CT, metadata: which should open source.



Scope and Timescales

- Scope choices include:
 - Only parts of the application vs. the whole application
 - Only to selected organisations vs. anybody
 - Only code vs. code that's built and tested into an application
- Timescale choices include:
 - Phased approach to open sourcing
 - Big bang approach
- Considerations
 - Can code easily be separated into open source and non-open source.
 - Is the code stable enough to be open sourced.
 - Are there commercial considerations to consider on timing.



Scope and Timescales (Case Study)

- Scope:
 - Open source the whole application
 - Make available to anybody
 - But only make code available (to make it cost effective)
- Timescales:
 - Waited until code was stable.
 - Then, made all code available (no phasing)
 - To avoid interdependencies in code causing issues



Selecting a License Model

- Options include:
 - GNU
 - EPL
 - Apache2
 - Bespoke license
 - ... many, many more
- Considerations
 - Compatibility with your other licensing models (due diligence).
 - Your reasons for open sourcing, against the details of each licensing model.



Differences in licensing models (examples)

- GNU
 - Any derivative works must be licensed under same agreement (strong copyleft).
 - Not EPL compatible; Not Apache2 compatible (i.e. GNU/Apache2 combined work cannot be released under Apache2).
- EPL
 - EPL code must be passed on under same licence; additional code can be licensed separately, including under a commercial license (weak copyleft).
 - Not GPL compatible; Not Apache2 compatible.
- Apache2
 - Code may be passed on under any type of license, including a commercial license (not copyleft).
 - GPL compatible; EPL compatible.



Selecting a License Model (Case Study)

- Wanted to keep process simple:
 - Selected a tested license model, didn't create a bespoke license.
- Performed due diligence on other licenses that were incorporated into the application:
 - Existing Apache2 licenses not compatible with copyleft license model.
- The Classifier license restricted the distribution license we could use:
 - Restricted to either EPL or Apache2.
- Wanted a flexible licensing model that would encourage collaboration and commercial involvement.
- Also, most incorporated code was already under an Apache2 agreement:
 - Therefore, selected Apache2



Selecting a deployment mechanism

- Deployment mechanism options:
 - Provide facilities to enable collaborative development.
 - Provide facilities to download software.
 - Do not make code available.
- Costs vs. Revenue stream
 - Is there a cost to deployment?
 - Do you want a revenue stream from deployment?
- Considerations
 - How is the software to be maintained and enhanced in future?
 - Are development and collaboration facilities already available?
 - Do you want to encourage collaboration and discourage code splitting?



Deployment mechanism (Case Study)

- Deployment strategy:
 - Use existing IHTSDO Workspace facilities, to allow collaborative development.
 - Make up to 100 developer seats available to potential collaborators.
 - Additional seats, giving access to code on the IHTSDO Workspace, can be purchased (directly from our supplier, covering deployment costs).
 - Software can also be downloaded.



Reviewing Support Options

- Support and training options include:
 - Encourage commercial organisations to provide support.
 - Provide a collaborative area for community based support.
 - Provide online recorded videos and/or training materials.
 - Provide regular open training sessions (free or for a fee).
 - Provide central support (possibly creating a revenue stream).
 - Pay as you go
 - Per month contracted
 - Included as benefit of membership
 - etc...



Support and Training (Case Study)

- Support and training strategy:
 - Provide central support for IHTSDO Members and their designees
 - Online recorded videos and training materials made available via the IHTSDO website and IHTSDO Workspace.
 - Encourage commercial organisations to provide support.
 - Use the IHTSDO Workspace to provide a collaborative area for community based support.
 - Provide regular live training sessions
 - Online free of charge
 - Face to face, covering costs.



Stakeholder buy-in

- If you have multiple stakeholders:
 - Each may have different reasons for wanting to open source.
 - Some may have reasons not to.
 - Most will have concerns.
 - Some may not fully understand the pros and cons of each option.
- Clearly document:
 - Reasons for going open source.
 - Constraints within which decisions are made.
 - Options for licensing and deployment.
 - Recommendations, based on requirements and constraints.



Communicating

- Internal communications
 - Make timescales clear to stakeholders
 - Make any implications clear to developers and stakeholders
- External communications
 - Press release
 - Notify known interested parties
 - Be clear on the benefits to the wider community



Doing it

- Create a bespoke license, if one is required
- Reference the selected license from each source code file
- Include copyright notice in each source code file
- Setup the deployment mechanism with appropriate access controls.
- Include ongoing due diligence in development process, to avoid license incompatibilities.



Doing it (Case Study)

- Include Apache2 header at the top of each source file.
- Separate out SNOMED CT metadata into a single release file, and include an Apache2 header. Update this file with each future release.
- Include copyright notice in each source code file.
- Create a license file, acknowledging open source licenses and giving notice that commercial licenses are required for icons and subversion access to build the application.
- Make all source code files available within public projects on the IHTSDO Workspace.
- Remove SNOMED CT clinical content from the public projects.
- Include ongoing due diligence in development process, to avoid license incompatibilities.