

## **EclipseCon Europe Unconference: Science Working Group Meeting Minutes**

**Attendees (for all or part):** Wayne Beaton (Eclipse Foundation), Jay Jay Billings (ORNL, presiding), Janos Binder (Lablicate), Davy de Durpel (iSencia), Erwin de Ley (iSencia), Rob Emanuele (Azavea), Jody Garnett (Boundless), Tracy Miranda (Kichwa Coders), Taylor Patterson (ORNL), Christian Pontesegger, Dirk Puis (iSencia), Andrea Ross (Eclipse Foundation), Alexandra Schladebeck (Bredex), Tobias Verbeke (Open Analytics NV), Philip Wenig (Lablicate)

### **License and Intellectual Property**

The group discussed at length the good and bad about the Eclipse Intellectual Property (IP) review process and procedures. Overall, they are viewed as a good thing, but more broadly they are a problem because the majority of scientific software is licensed under the GNU Lesser General Public License (LGPL). The firm stance of the Foundation to restrict the use of existing libraries with the license present several challenges to the working group. The most obvious is that members must reimplement existing capabilities, which is very difficult. Furthermore, many scientists who would like to bring their own projects to the group cannot or will not because the LGPL is forbidden, which ultimately hurts the legitimacy and growth of the working group.

Verbeke demonstrated the Eclipse-based tools for R that are available in products from Open Analytics NV as an example of this problem. Their tools require R, which is a programming language for statistics and is licensed under the GNU General Public License. Verbeke and others from the R team worked to relicense some of the API under LGPL and these LGPL components are required by the Eclipse tooling. It was not immediately clear how such a project could be migrated to the working group (if such a course was indeed desirable by Open Analytics NV) and it only became feasible after engaging Beaton and Ross. The resolution was that it is OK if the tools use LGPL API, but anything beyond that would not be generally allowed. This is an important example because collocation at EclipseCon for the week made it possible to figure out a path forward, but outside of that environment there are no good public resources available to answer these questions and we may be inadvertently running people off.

Beaton and Ross committed to speaking to the Foundation about this issue on behalf of the Science Working Group.

### **Open Analytics Architect**

Verbeke demonstrated Architect from Open Analytics NV, which is an IDE for Data Science with extensive support for R. It was welcomed warmly by all in attendance and Verbeke was encouraged to join the group.

### **Reading of the Minutes for the October Steering Committee Meeting**

Billings read the minutes from the October Steering Committee Meeting. He deferred to de Ley for the Triquetrum update and Wenig for the OpenChrom update.

### **Data Structures Project and IDataset Status**

Miranda presented an update on work that her and Jonah Graham (also of Kichwa, not in attendance) have done on IDataset and brought to the floor a general discussion on a data structures project. That discussion is summarized here:

<http://dev.eclipse.org/mhonarc/lists/science-iwg/msg01250.html>

### **Scripting Support**

Miranda and Pontesegger led a discussion on scripting. Tracy reported work from Kichwa to integrate CPython into EASE via Py4J, which is of interest to Pontesegger and Billings.

(Billings stepped out shortly before the last session to meet with Wayne and Andrea. Please update the minutes as necessary.)

### **Image Processing in EAVP**

Garnett and Emanuele from LocationTech discussed what that working group needs in terms of visualization and image processing. Marcel Austenfeld's image processing plugin from Bio7, which he has graciously contributed to EAVP, was reviewed as we ImageJ itself. Garnett and Emanuele were later introduced to Austenfeld by email.

Emanuele stated that Azavea has a rastering library for image processing and there are other projects in LocationTech that do it too.

The groups resolved that the IP team should be consulted about ImageJ since it is in the Public Domain. Garnett, Emanuele and Ross expressed interest in dual licensing EAVP under EPL and EDL and Billings agreed to supply slides to Beaton for the required discussion with the board.

A discussion of ImageJ features and its applicability for the imaging library needs to be held.

### **Outreach Activities**

The group discussed how outreach activities should be conducted and who should be contacted.

Billings expressed his opinion that work on "hardcore" medical technologies such as those used for lifesaving operations or medicine should not be pursued because of the possibility of a bug

causing a big problem. De Ley stated that, in general, he did not believe the working group should be working on military applications. After a good discussion, the group concluded that in general should will not pursue or condone such work, but we will not intervene to stop individuals from working on those types of projects or those types of organizations from using products from the working group.

Ross stressed that the “Create a project” discussion need to be routed through her. She is also going to reach out to COMSOL, CDK, OrientDB, Bioclipse and HDF5.

### **Facebook Open Academy Update**

Billings and Wenig provided updates on the status of the Facebook Open Academy activities within the group and reported that they have gone very well.

### **Architecture Discussion**

Billings and de Ley led a discussion on the architecture of the working group. Billings expressed his opinion that the group should indeed have a governing architecture with communications, input/output and data structures forming the base, higher level utilities like EAVP and Triquetrum the immediate next level and the top-level Science project and existing products at the top. As the day was nearly over, Billings committed to write up his ideas in a document that he would share with the working group.