OSS Watch
Supporting open source in education and research

▶ http://www.oss-watch.ac.uk/newsletters/march2011.pdf

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Welcome to our March newsletter. This month's featured article comes from Ross Gardler, who examines the tools that are common to most open source projects and suggests ways in which you might use them to build community. We are delighted to follow this with a guest blog post from Mark Webb, research scientist at the Met Office. Mark tells us about how OSS Watch helped his project recognize the need for a governance model and how to choose the most appropriate model. Perhaps you have a project that could use some advice in this area?

We also bring you a blog post from Gabriel Hanganu, who is looking forward to an upcoming OSS Watch event, Open Source Junction: cross-platform mobile apps. It takes place 29-30 March in Oxford and is a must-attend event for anyone interested in mobile partnerships between the academic and industry sectors. Shall we see you there?

Elena Blanco, Content Editor, OSS Watch ▶ info@oss-watch.ac.uk

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News from OSS Watch

London Stock Exchange in historic Linux go-live

The London Stock Exchange has launched a new matching engine based on Novell SUSE Linux technology. The move has been billed as one of the LSE's most significant technological developments since the increasing prevalence of electronic trading led to the closure of the traditional exchange floor in 1986.

▶ http://www.computerworld.com/s/article/9209321/London_Stock_Exchange_in_historic_Linux_go_live?source=rss_applications

Data visualisation tool developed at MIT gets Library of Congress support

A $650,000 grant from the United States Library of Congress will fund work on a new version of Exhibit, the popular open-source software tool developed at MIT that helps with searching, browsing and visualising data on the Web. The MIT Libraries, in collaboration with the MIT Computer Science and Artificial Intelligence Lab (CSAIL) and Zepheira, LLC, will redesign and expand upon features of the tool to create 'Exhibit 3.0'.

▶ http://web.mit.edu/newsoffice/2011/data-visualization-loc.html

Linux Foundation announces new Android and MeeGo developer training courses

The Linux Foundation, the non-profit organisation dedicated to accelerating the growth of Linux, has announced six new training courses dedicated to the development of Linux-based mobile operating systems Android and MeeGo. The courses will help meet new demands for Linux training and fill open positions at a variety of the foundation's member companies.

▶ http://linux-foundation.org/weblogs/press/2011/02/01/linux-foundation-announces-new-android-and-meego-developer-training-courses/

Microsoft Research and University of Cambridge assign the Chemistry Add-In for Word project to the Outercurve Foundation

The Outercurve Foundation, in collaboration with Microsoft Research and University of Cambridge, has announced that the Chemistry Add-In for Word project has been added to the foundation's Research Accelerators Gallery, a collection of open source projects that benefit the research and science communities. The Chemistry Add-In for Word (also known as the Chem4Word project) was developed by Microsoft Research and Drs. Peter Murray-Rust and Joe Townsend of the University of Cambridge's Unilever Centre for Molecular Science Informatics.

▶ http://www.outercurve.org/News/articleType/ArticleView/articleId/28/Microsoft-Research-and-University-of-Cambridge-Assign-the-Chemistry-Add-In-for-Word-

Yahoo! throws more weight behind Apache Hadoop

Yahoo! has decided to discontinue the 'The Yahoo Distribution of Hadoop' and focus on Apache Hadoop. It will close its github fork of Apache Hadoop and focus on working more closely with the Apache community. Eric Baldeschwieler of Yahoo! said in an email, 'Our intent is to return to helping Apache produce binary releases of Apache Hadoop that are so bullet proof that Yahoo! and other production Hadoop users can run them unpatched on their clusters.'

▶ http://markmail.org/thread/mcryeccj3wc7f4ir

Hudson becomes Jenkins with strong community support

The Hudson community has voted overwhelmingly in favour of forking the Oracle-owned project. The fork will be called Jenkins and will be hosted on an independent infrastructure.

▶ http://jenkins-ci.org/content/jenkins

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JISC

Essential tools for running a community-led project

Full article can be found at http://www.oss-watch.ac.uk/resources/communitytools.xml

There is no single correct way to build and manage a community-led project, but there are common tools and practices that we can use to support our work. The key is to use tools that are appropriate to your community and to keep them to a bare minimum. In this document, we examine the tools that are common to most open source projects and suggest ways in which you might use them to build community.

1. Tools should facilitate, not dictate

Many people think that being open in a project is about spending an inordinate amount of time informing people of current activities. But this need not be the case. If you are careful about selecting your tools and the development process that uses them, the appropriate level of external communication will simply be a by-product of the development process.

To understand how this can be true, we first need to understand that the goal of being open is not to ensure that everyone understands what it going on at any given point in development. Instead, it is about enabling those with sufficient interest to find the information they need. By focusing only on those interested enough to do their homework, we reduce the need for existing members of the community to hand-hold newcomers. This allows them to focus more completely on getting the results they seek. This may appear to be counter to the goal of building community, so let's pick it apart a little.

> **A tool should be introduced only when there is a clear need for it.**

In a community-led project, people participate in order to satisfy their own needs - you might call it 'scratching an itch'. So an individual's main driver will not be to build a community, but to solve a specific problem they face in their job, studies or hobby. For this reason, projects should be run in such a way that process and community overhead do not get in the way of people pursuing their interests.

That being said, a well-run open source project will have a set of lightweight processes and tools that provide a sensible compromise between keeping people informed and allowing them to get on with 'scratching their own itch'. We will look at these processes and tools in the next sections.

2. The basics

Many people new to open source make the mistake of thinking they need to provide the widest possible set of tools to allow interested parties to engage in a way that

suits them. However, this is usually a mistake. A tool should be introduced only when there is a clear need for it. Introducing a tool too early will confuse users ('Which tool do I use to do X?') and potentially split activity across multiple tools, thus creating an impression of reduced activity.

For an open source project, there are four essential tools and a whole raft of non-essential ones. The core tools that all projects should start with (and limit themselves to) are:

- **WEBSITE:**
  for communicating the intention and status of the project at any given point in time
- **DEVELOPER MAILING LIST:**
  for the ongoing exchange of ideas, design and information
- **VERSION CONTROL:**
  for code management and communicating code changes for review
- **ISSUE TRACKER:**
  for planning and communicating work schedule and current activities

The core process for development, using these tools, will typically look something like this:

1. Record an issue (bug, new feature, enhancement, etc.) to be addressed in the issue tracker
2. Assign the issue to a developer
3. [OPTIONAL] if the work is complex or will introduce significant changes, post intentions to the developer mailing list (often this is an automated mail generated when the issue tracker is updated)
4. Get on with the work (engaging with the broader development community through mailing list as necessary)
5. [IF COMMITTER] commit early and often to version control; this will send an automated message to the developer mailing list and allow the code to be reviewed and if necessary changes requested
6. [IF NOT COMMITTER] submit patches to the issue tracker frequently; this will send an automated message to the developer mailing list, allowing the patch to be reviewed and, if necessary, changes requested
7. Repeat until either the job is complete and all review requirements have been satisfied
8. Mark the issue as complete (which sends a notification to the list)
9. Update the website when appropriate

An important thing to note about this process is that it takes very little effort on the part of the developer to keep the community informed. The developer is not doing anything that they would not normally be doing in a well-run software project. Most community updates are created automatically by the tools, not by a human. So achieving openness does not require any additional effort beyond setting up the tools correctly in the first place.

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Governance for growth: how a governance model can benefit your open source project

Published on February 21, 2011

This guest post was written by Mark Webb, research scientist at the Met Office

I work at the Met Office Hadley Centre and part of my job is to evaluate the representation of clouds in the computer models which we use for climate predictions.

One way in which we do this is to compare the clouds simulated by the models with observations of clouds from satellite instruments in orbit around the Earth. Unfortunately this process is complicated by the fact that satellites do not have a perfect view of all clouds. For example, low-level clouds are often not visible from space because of other clouds above them.

For this reason, we use satellite instrument 'simulators', which are computer codes designed to simulate what a satellite would see if it were observing our climate model. Simulator outputs can then be compared with observed satellite products in a quantitative way. This overcomes the 'apples and oranges' problem of comparing climate model clouds on all levels with observed clouds with some low-level clouds missing.

A number of simulators have been developed over the years, for a range of satellite instruments. These include operational weather satellites, which make 'passive' measurements of energy radiating from the Earth at infra-red and visible frequencies. More recently the approach has been extended to include new active instruments – for example, a cloud-profiling RADAR which analyses the time and intensity of a return from a pulse of radio waves sent into the atmosphere from the satellite.

I co-chair the Cloud Feedback Model Intercomparison Project (CFMIP), and as part of this I have been involved in an international effort to develop a software package which will bundle different simulators together and provide a consistent interface. This package is the CFMIP Observation Simulator Package (COSP). COSP had its first production release earlier this year, and is now being implemented in a number of climate models around the globe as part of the CFMIP.

COSP currently runs to about 15,000 lines of FORTRAN code, contributed by a number of academic and government organisations around the globe. The COSP glue layer and all but one of the instrument modules are available under a BSD licence. Although we liked to think of the project as being quite open, until recently we have had no formal governance model, and have been running the project under an informal form of benevolent dictatorship.

This all changed following a few conversations with Steve Lee of OSS Watch (who I know socially). Steve outlined a number of benefits to having a formal governance model. The first benefit that struck me was that a governance model would lay out clearly a number of roles and responsibilities which could encourage those who may not want to develop code to contribute in other ways, e.g. by testing, improving documentation, or helping with user queries. The other is that it lays out a clear decision-making process.

About the same time, our group of developers were discussing the possibility of securing some funding to employ someone to take responsibility for developing and improving the code. It seemed to us that a governance model would provide a useful foundation for any bids for funding, and would ensure that control of the project remained with those who have contributed over the years.

We found the OSS Watch information on governance models very useful for this. We had considerable debate about whether to move to the benevolent dictator or meritocratic governance model, but we eventually agreed that we would adopt the meritocratic model. We have now formed our Project Management Committee (all developers were invited) and appointed two co-chairs. We will be having our first teleconference to discuss the future of COSP in a couple of weeks.

Already I am seeing evidence of more shared responsibility for decision-making on the project, and I am looking forward to seeing the project grow, knowing that we now have a process in place for making decisions – hopefully one which will scale well as the project grows. I'm very grateful to Steve Lee and OSS Watch for the support that they have given – I doubt we would have made this transition without them.

Open Source Junction: cross-platform mobile apps

Published by Gabriel Hanganu on March 1, 2011

Gabriel Hanganu

The open source mobile app space is getting increasingly crowded. The recent opportunities for developers to produce and distribute mobile apps through a range of app stores is taking the developer world by storm. If, as the saying goes, all people dream of writing a poem at least once in a lifetime, then perhaps there aren't many developers out there either who haven't dreamed of building a great mobile app themselves.

I don't have any stats on the percent of open source developers producing apps for app stores. However, a number of concerns reported in the past by open source developers contributing to the Mac App Store suggest that alternative solutions, such as the rising Android Market, may stand better chances to attract contributors used to work in an open development fashion.

The popularity of the mobile apps in the developer world is reflected by the significant number of events organized on related topics. A quick search on Eventbrite listed 283 mobile-related UK events within the next few months. As expected, most of these events target business audiences. Some of them, such as OSIM, specifically explore solutions for developing and distributing mobile open source software.

As the education sector tries to keep pace with the recent developments in the mobile world, a number of academic projects have looked at how mobile solutions may help educational institutions fulfil their teaching and research remits. Most of these projects address issues specific to their teams' teaching or research interests. As mandated by JISC's software collaboration policy, more than one institutions took part in these projects and the software produced was released under an open source licence. However, as far as I am aware, no long term mobile partnerships between the academic and industry sectors emerged as a result of these initiatives so far.

> I hope to see some of you there.

This is precisely the type of event missing from the crowded mobile software space. There are virtually no events bringing together business and academic developers working on open source mobile apps aimed at building sustainable partnerships using lessons learned from open source development.

OSS Watch has identified this opportunity, and in collaboration with 100% Open has put together a series of two-day workshops in order to fill this gap. Open Source Junction aims to connect industry and academic innovation emerging in open source mobile technologies. The first event in the series focuses on open source cross-platform mobile apps, and will take place on 29-30 March in Oxford. More information about the programme, speakers and sessions is available on the registration page.

If business and academic teams working together on open source mobile apps is something that appeals to you, whether you are a developer, a researcher, a project manager, a mobile open source strategist, or a funder interested in industry-academic partnerships, then you can't miss this workshop. There are no other UK events where open source and mobile apps join forces and academic and business developers rub shoulders together in one of the most atmospheric historical venues in Oxford. I hope to see some of you there.

▸ http://osswatch.jiscinvolve.org/wp/2011/03/01/open-source-junction-cross-platform-mobile-apps/

Events

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March

Richard Stallman in the UK 2011

Richard Stallman, founder of the Free Software Foundation (FSF), GNU's Not Unix (GNU) and the Free Software Movement, is doing a speaking tour of the UK (unfortunately, Northern Ireland is not included in the tour) at the beginning of March 2011. The individual events are being organised by local IET committees and registration is required.

▸ http://www.ffsuk.org.uk/rms2011/

Mar 19-20

UKUUG's annual Large Installation Systems Administration (LISA) conference and tutorials will be held in Leeds on 22-24 March 2011.

The conference will provide the opportunity to keep abreast with new or emerging technologies, enjoy lively debate and become part of the UK Unix community. The call for papers is now open and submissions for tutorials and conference talks are being accepted.

▸ http://www.ukuug.org/events/spring2011/

Mar 29-30

Open Source Junction: cross-platform mobile apps, Oxford, 29-30 March 2011

OSS Watch invites you to take part in Open Source Junction taking place at Trinity College, Oxford, OX1 3BH, on Tuesday 29 March and Wednesday 30 March 2011. Open Source Junction builds a community of industry and academic stakeholders with an interest in open source software for mobile technologies. The first Open Source Junction workshop is on cross-platform mobile apps.

▸ http://www.eventbrite.com/event/1283889147

Apr 19-20

MoodleMoot, London, 19-20 April 2011

The popular Moodle conference returns to London and will be held at Senate House, the University of London's iconic Art Deco building. Interesting keynotes and parallel workshops showcasing Moodle usage from an administrative, pedagogical and technical perspective will alternate during the conference. A first ever, there will also be a pre-Moot developer Unconference.

▸ http://mootuk11.org.uk/

Oct 26-28

LinuxCon Europe 2011, Prague, 26-28 October 2011

The Linux Foundation is pleased to announce the launch of LinuxCon Europe in 2011. LinuxCon Europe will bring together the best and brightest that the Linux community has to offer, including community developers, system administrators, business executives and operations experts. It will feature speakers from across Europe and around the globe, innovative and abundant programme content, and opportunities for attendees to connect with peers. For this year only, attendees will be offered the opportunity to also attend the Embedded Linux Conference Europe (ELCE) at no additional cost.

▸ http://events.linuxfoundation.org/events/linuxcon-europe

Frequently Asked Questions

Q What is a release management process and why is it important to have one clearly defined?

A A release management process defines how software is built, packaged and distributed. Having a clear process in place from the outset enables a project team to plan and schedule a release, prioritise work and address any legal issues. It also ensures that any testing can be carried out in good time and by as many people as possible, and therefore that the release is of sufficient quality to be useful to others. For more information, read Release management in open source software projects and Best practice in release management.

Find answers to your questions at: http://www.oss-watch.ac.uk/about/faq.xml

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