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枯れた技術：FLOSS から学ぶ
Legacy Technology Still in Use: Lessons from FLOSS Development

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1. Introduction

In science, including geospatial and earth science, use of the Internet is becoming more and more important. Institutions provide more and more, spatial data and scientists share the information or work on a project regardless of geographical boundary. In such situation, social media will be becoming more and more important, but the popularity changes so easily. On the other hand, there are several social tools which have been around for more than 30 years, such as IRC and CVS/Subversion/git. In this paper, the advantages and disadvantages of the current and legacy social tools.

2. Underlying Philosophy

IRC and CVS/Subversion/git are very popular among free and libre open source software (FLOSS) developers. One of the most important factor of free software was revealed by Eric Raymond, who contrasted two different free software development models:

The cathedral model: source code is available with each software release, but code developed between releases is restricted to an exclusive group of software developers.

The bazaar model: the code is developed over the Internet in view of the public.

In fact, all the commercial projects and many FLOSS projects are organized in the cathedral model. The point is, only FLOSS software can be developed in the bazaar model. The most well-known project which adopted the bazaar model is perhaps Wikipedia. What can we learn from the project?

3. IRC vs twitter

There are many real time chat tools, such as IRC, Skype, Messenger, Twitter and LINE.

IRC is a communication protocol developed in 1988. In IRC, users join a server (e.g. freenode.net) using IRC clients (e.g. xchat), then joins a room (e.g. #qgis, #grass) to talk and discuss issues. It is said that there are more than 50,000 users on Freenode. The figure may be small, when compared to twitter or LINE. It is noted that the author(s) asked several Fink developers to review this article. IRC can be compared to twitter in that they are both for “short text” and real-time communication.
When using twitter, you can browse information about a certain topic using hash tag (#). However, twitter is in its essence a ”twit”, expressing one’s opinion and rarely becomes a place for conversation/discussion.

ITO (MTT38-01) discusses that the information is well organized at togetter by a coordinator. Byt the summary on togetter is often very difficult to read. On the other hand, chat logs of many IRC channels are very useful without any editing. Perhaps, something can be learned from IRC. But so far, my suggestion is to use IRC for scientific discussion.

4. Discussion

As seen in the previous section, there are several legacy tools that are still widely used, especially among FLOSS developers. One of the advantages of these legacy tools is that they have been evolved to support the ”cathedral” model explained above.

For geospatial and earth science, such tool may be useful to share the information of, say, open data. There are many institutions, public or private, which offer GIS data on the Internet. The official data, such as shape files provided at data.gov.uk or nlftp.mlit.go.jp/ksj/, would be more useful when one finds an error, fix it and report and/or redistribute it. The download pages

may be more enhanced with wiki, where users can post their ways of using the data. Google maps, or its more ”open” alternative, OpenStreetMap, may be more sustainable if they learn more from legacy tools.

5. Conclusion

Several social tools for FLOSS development, which have been developed since 1980s, are reviewed. Some tools, such as IRC, are still used despite the recent advancement of newer social tools. In fact, these tools may be more advanced, in that they give more powers to users, than the recent and more popular social media, such as Facebook and twitter.

キーワード: FLOSS, IRC, CVS, Bug Tracking
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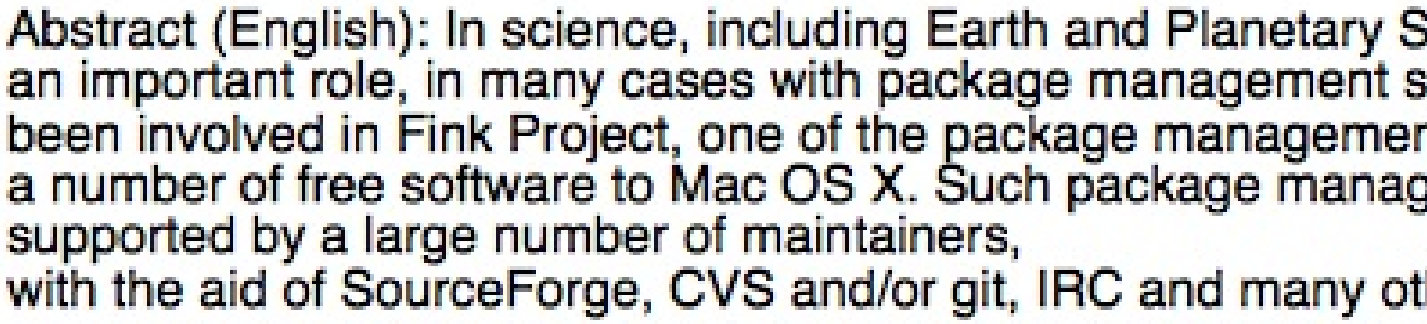
Abstract (English): In science, including Earth and Planetary S
an important role, in many cases with package management s
been involved in Fink Project, one of the package managemer
a number of free software to Mac OS X. Such package manag
supported by a large number of maintainers,
with the aid of SourceForge, CVS and/or git, IRC and many ot