

Open source software

Licensing as easy as it can be

Why licensing open source software can be cumbersome and how a free database can provide assistance.

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The numerous advantages of free and open source software – especially for long-lasting capital goods – have already been written about in many places. Here, we are concerned with a disadvantage: Compared to proprietary software licenses, the obligations of open source licenses are less easy to fulfill when copying and distributing the software. For proprietary licenses, on the one hand, the single essential obligation that is easy to fulfill is to pay the license fees. For open source licenses, on the other hand, a wide range of documents must be supplied, and obtaining and compiling them often involves a considerable amount of work. Incidentally, it is the other way around when it comes to granting rights. Proprietary licenses typically contain complicated rules about what rights are granted and what prohibitions are imposed, while all open source licenses grant the same generous rights that are easy to understand.

Cumbersome source code analysis

In order to fulfill the obligations of open source licenses, it is nearly always mandatory to analyze the source code. In this analysis, the first step is to determine the license, and the second step is to extract the information required by the respective license from the source code. This usually involves copyright notices and warranty disclaimers in favor of the original authors; in some cases acknowledgments may also need to be passed on.

Even with relatively small software packages, special tools must be used to extract these details from the source code, because this task can no longer be accomplished manually. While many of these tools are also licensed under an open source license, so that they can be easily obtained and used, a certain level of expertise is essential for using them correctly, and a considerable amount of time must be planned for. Matters are further complicated by the fact that many software packages contain source code files that are under different licenses, and in individual cases this may well be more than a hundred licenses.

It is generally recommended that the above information – i.e. license texts, copyright notices, warranty disclaimers and acknowledgments – be bundled in a single file per software package, the so-called disclosure document, and made available to the recipient of the software when it is distributed.

Creating a disclosure document

The tasks described above for the distribution of open source software are practically



The OSADL team at their stand.

identical for every company, and a disclosure document produced once for a specific version of a software package can basically be used unchanged as often as desired as long as the software itself remains unchanged. The effort required to produce a disclosure document could therefore be expended only exactly once – similar to the development of open source software, where the effort is also expended only once, but the software can then be used any number of times.

Up to now, however, each company has produced the disclosure documents individually and has found this to be a major disadvantage of open source software. But why can't the principle of developing something once, but then using it an infinite number of times, also be applied to disclosure documents? It may be that this question has been asked many times before, but until recently there has been no initiative to provide free community-based disclosure documents with the goal of having complete data sets available for entire embedded systems. The availability of such a data set means that companies can save on work that may well have previously taken several weeks or even months.

Verified information

However, there is actually a good reason why the use of publicly available disclosure documents is problematic: It must be ensured that the quality of the provided documents is so largely beyond doubt that companies can confidently use such external legal documents. This level of trust can be achieved, for example, by making the creation process of the documents as transparent as possible and by providing for a public review process – in principle,

OSADL at the embedded world Conference

There will be an OSADL session covering open source licensing and the OSSelot database project at the embedded world Conference, on Wednesday, 15 March, from 1:45 p.m. to 3:30 p.m. in NCC East.

this is also identical to the development of open source software. So not only must the disclosure documents themselves be made available, but all processes as to how these documents were produced must also be disclosed and made traceable.

Database with disclosure documents

In view of the described requirements for licensing open source software, a project

called OSSelot was founded some time ago. This project aims to provide a freely usable open source curation database with disclosure documents of all software packages required for a typical Linux-based embedded system. The concept of the project takes into account all the above points:

- Free usability is granted by the CC0-1.0 open source license.
- Unrestricted access is achieved by storing all data in a freely accessible repository.
- In order to create confidence in the quality of the documents, the work is done exclusively by highly qualified and named persons.

The homepage of the OSSelot project is www.osselot.org. Further information about the project can be obtained at Open Source Automation Development Lab (OSADL). jk

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