

Field Report on the OpenAV Release System

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Abstract

This paper discusses the OpenAV[1] release system, a new release system with at its core a balance between release date and financial support.

The release system works by creating the software, announcing it, and releasing after a waiting time. If money is donated to the project, the waiting time is reduced, which in turn results in an accelerated release.

This paper details the process of the OpenAV release system, discusses it in relation to other release systems. Finally the author draws on the experience gained by OpenAV Productions.

Keywords

Open-source, Funding, Software Release, OpenAV Productions

1 Introduction

This paper introduces the OpenAV release system, a release system which is designed to financially support the developer of a software project, while also ensuring that every project is released in source-code form.

Developers of open-source software often cannot work full time on a project due to financial constraints: they must earn money elsewhere in order to pay the bills. The OpenAV release system is designed to financially support a developer while working on an open source project.

The main components of the release system include a waiting time, a target amount for funding, and waiting before releasing source code. These components represent a balance, where both financial support and time passing contribute towards releasing the source code.

The outcome is always the same: the source code is released, the variable is how much money the developer received for their effort.

2 Background

In order to compare the OpenAV release system to existing funding and release-systems, a selection of well known crowd-funding projects

are introduced below. Each section has a short introduction of the platform itself, and a description of its unique features.

2.1 Kickstarter

Kickstarter is a funding platform where projects are advertised, and can be donated to by members of the public. Project proposals are posted, usually with a video and blog post to gain momentum for the idea. The funding model is one of proposing an idea, and then attempting to collect the full amount of money: “Funding on Kickstarter is all-or-nothing - projects must reach their funding goals to receive any money” [2].

2.2 OpenInitiative.com

OpenInitiative use a pay-per-item model where developers suggest work on a project or feature, and then users can contribute to each feature or project in order to have the work done.

The unique feature is that “the developer determines the delivery date when the project is finished. Users then have 14 days to validate the result or request corrections. The developer is paid only after validation by the users” [3].

2.3 Snowdrift.coop

Snowdrift.coop is a new method of funding projects, where contributors pay more money depending on how many others contribute to the same goal: “I’ll donate more if more people join me” [4].

This leads to a funding model that grows along with the projects it supports, making it sustainable for long-term funding.

2.4 Subscriptions and Donations

Allowing donations and/or subscriptions may provide financial support for a developer. Quantities of donations will vary depending on the amount of users directly benefiting from a project.

The motivation for donating or subscribing to a project are often driven by morals: generally there is no promise of a direct change in releasing based on donations.

3 OpenAV Release System

The OpenAV release system is a release system geared to provide software to the linux-audio community, while also financially rewarding the developer for time spent developing software.

The unique feature of this release system is that a release is not achieved by donating a fixed amount of money: instead a tradeoff between time and money dictates when the release occurs.

3.1 Design decisions

When OpenAV Productions was set up, the author researched how it could be financially supported while also releasing open source code.

It became clear that a new funding and release system could be more appropriate for developing and financially supporting projects than the existing solutions (e.g. Kickstarter).

The concept of setting a trade-off between release time and financial support became the core of the OpenAV release system. The release date is financially supported, instead of the product.

The developer commits to making an open source release: regardless of financial support, which ensures that the work done will become available to the commons. At the same time, an initiative exists to financially support the developer for a project, as the release of the code will be accelerated when money is donated.

3.2 Procedure

The stages of the release process are presented, after which each stage is detailed.

- Creation: the project is developed to a 1.0 degree of features and testing.
- Announcement: demonstrates the project, what it's purpose is, and how to use it.
- Releasing: the projects source code is made available.

3.2.1 Creation

In the first stage of the OpenAV release system the developer writes the software. During this stage they have the option to publicly consulte the community about the project if they so wish.

On completion of the features for a 1.0 release, testing is performed to verify the software is stable. When testing OpenAV software a group of trusted users are provided with the source code, and requested to not re-share the code. They can then use the software, and report bugs that were encountered.

When testing of the code has completed, the project is announced.

3.2.2 Announcement

In the announcement the developer demonstrates the software, what its purpose is, and what its features are. A good announcement makes it obvious to the audience of readers how they would benefit from the available of the project.

The announcement of the project includes two important factors for the release: the target amount and the waiting time. The target amount represents the amount of financial support the developer wishes to receive in return for creating the software. The waiting time is the amount of time that must pass before a release is made if no financial support is recieved.

The waiting time starts counting down from the date the announcement is made, and financial support in the form of donations is welcomed also from this date.

3.2.3 Releasing

The project is released when one of three situations occurs. These three situations are summarized, and then explained:

- The target amount of financial support is reached
- The waiting time expires, without financial support
- A combination of financial support and waiting time passing, as shown by:
$$\text{Financial contributions} + \text{Waiting Time} = \text{Target Amount.}$$

Financial Support Target Reached

The target amount of money is reached by financial contributions. The developer has recieved the amount of financial support that they requested for an immediate release.

Waiting Time Expires

The waiting time for the project has passed: the project release is made without any financial contribution. The developer does not receive any financial support for their efforts.

Combination of Finance and Time

The target amount has been reached, partially by financial support, and partially by time passing. The developer has received some financial reward for their effort, and some time passed, adding up to the target amount.

Releasing

When any of the above three situations occur, the developer releases the source-code online allowing access to all.

4 Parties involved

This section details the point-of-view of the various parties involved in the OpenAV release system. Each party has specific positive and negative aspects with regards to their relation to the release system.

4.1 The Developer

When a developer uses the OpenAV release model, they create the environment for the production of software, both financially and for the code.

The software has to be written without financial support, as only after the projects announcement do they receive any financial support from it.

An announcement must be prepared, which shows off the features of the program. This is generally not necessary when releasing code, so could be considered extra work that the developer must do. Demonstrative videos or blog-style posts have been used by OpenAV Productions to publicize the software's functionality.

The previously prepared content must be broadcast to as large a user-base as possible: this involves using social-media extensively, writing emails to mailing lists, and posting on fora.

After completion of the project, the demonstrative content, and announcing it the developer waits for financial contributions. If contributions arrive, the release clock is updated, otherwise the waiting time is reduced according to the time passed.

4.2 The Contributor

When the OpenAV release system is in use, certain members of the community may decide to financially support the project. The donation accelerates the release of the project, but does not have any immediate result for the contributor.

As a return to the contributor the developer could list the contributors name, IRC nick or online handle on the project page to show their appreciation. OpenAV Productions lists contributors only after receiving a positive answer to the contributor being comfortable with such, and indicating their preferred name to be publicized. This is in order to maintain absolute privacy for contributors if they wish to remain anonymous.

4.3 The Library Developer

The authors of libraries that the project being released is based on make up this group of people. Although perhaps not directly involved in the OpenAV release model, the author feels it worth mentioning the library developers as an involved party as their code is in use by a project that is being financially supported by the community.

The project developer has the choice to donate some of the financial contribution they received to the library developer, however they are under no obligation to do so.

There is the possibility that a library developer doesn't agree with the release model which is being used by the project. Assuming that the license of code in question was not violated, one could say that it is irrelevant if the library developer doesn't agree with the release model: the license they chose is adhered to.

However, the fact that money is exchanged, and the library developers might not personally agree with the funding model is worth noting here.

4.4 The Remaining Community

The final "catch-all" group contains the community members who are not directly involved in the creation or funding of the project. Upon the release of the project, they gain source-access to the project too.

The fact that the whole community benefit from certain members financially supporting the developer is in the authors opinion the ultimate success of the OpenAV release system.

4.5 Statistics

This section introduces the statistics of the finances that OpenAV has received while working with the release system.

The data presented in table 1 shows details on the projects released by OpenAV Productions at time of writing. The columns show project title, hours spent developing the project, target

funding amount, waiting time, and number of days before the project was funded.

Project	Time	Target	Wait	Days
Sorcer	90	€ 120	1 year	9
Fabla	110	€ 120	1 year	8
ArtyFX	120	€ 120	1 year	5
Luppp	480	€ 520	1 year	5
ArtyFX 1.1	70	€ 120	1 year	8
Total	870	€ 1000	-	-

Table 1: Details of projects released by OpenAV Productions at time of writing.

4.6 Time

While developing the OpenAV projects the author has kept time spent developing. This was done using time tracker software, which provides breakdowns of time spent, and total hours.

Since the release of Sorcer in May, the total amount of time spent developing code for OpenAV productions is approx. 870 hours.

This figure does not include the development of Sorcer or Fabla (since they were started before Sorcer’s release), however it does include work on some currently un-announced projects.

5 Discussion

This section discusses different aspects of the OpenAV release system. Various points-of-view are discussed with regards to the unique features of the OpenAV release system, compared to the other release systems presented in the background section.

5.1 Trust and Reputation

This section discusses the topic of trust between the developer and the community that applies to each funding model.

5.1.1 Code Quality

The OpenAV release model requires a basis of trust between the community and the developer. This trust in the developer takes its form as members of the community who financially contribute to the project believe that the quality and stability of the program is worth funding.

This trust can be built up over time by each developer by making smaller contributions, or releasing some code to prove their capabilities.

5.1.2 Target Funding

On announcement, the developer defines the target amount of financial support when using the OpenAV release system.

Contributors must make a decision when supporting a piece of software if they think the developers efforts are worth the finances they’re asking for. This decision involves the contributors trust in the developers estimate of price, as well as their personal evaluation of the desirability of the resulting project.

5.1.3 Waiting Time and Funding

Upon announcing a project using the OpenAV release system, the developer must choose a waiting time before the project is released: even if no funding is recieved.

This waiting time is the tradeoff for financial contributions: a good balance between waiting time and target amount will motivate people to contribute to the project, because their contribution makes a significant improvement to the release date.

5.2 Release System Comparisons

This section discusses how the OpenAV release system compares with other release systems as presented in the background section: Kickstarter, OpenInitiative and Snowdrift.

5.2.1 Motivation for development

Kickstarter can be used to gain financial capital for commercial and closed source profit. It does not imply that the resulting software / project is released as open source.

On the contrary, the OpenAV release system incorporates a promise from the creator that the result of their work will be shared as open source regardless of the amount of funding that they may receive.

This fundamental difference between the funding motivation is one which is interesting to consider when discussing funding models for open source software.

5.2.2 Financial support

There are a variety of different choices to considering as to when a developer receives funding.

Kickstarter uses a “propose-fund-work” system which means that at worst the developer only makes a proposal, and if its not funded doesn’t have to do any more work. OpenInitiative breaks this down into smaller stages, for a more finely-grained “propose-fund-work” system.

Snowdrift takes a totally different angle, and supports the developer financially without them having to make a commitment to a certain feature to develop.

The OpenAV release system takes a novel approach, which involves the developer doing all the work and then hoping to be financially supported for the time spent on that feature.

By using the OpenAV release system, a developer must be aware that they must do the initial development of the program without financial support.

5.2.3 Outcome of project

This section discusses the outcome of each project, based on the funding method used.

When funded with Kickstarter and OpenInitiative, if a proposal doesn't get funded then the work isn't completed. This means that the developer doesn't have to spend their own free time completing the work, but also that the community doesn't benefit from the work done.

Using the OpenAV release system, the developer takes on the risk of doing the work, and hoping to be financially supported later. In this way, the release model is more demanding for the developer, and less demanding of the community.

A positive aspect of the OpenAV release model is that the community can see the work done, and if they value it, they can contribute to the project in order to have it released sooner.

5.3 Financial Viability

This section deals with the financial viability of doing full time development of software using the OpenAV release system.

As presented in section 4.5 *Statistics* of this paper, table 1 shows each project, the approximate amount of time spent on the project, and the amount of financial support received for the project.

Each project was released with 100% funding. This shows that the community are willing to financially support developers using this release model.

The hourly rate of pay is about €1.15. In order to make a living from releasing software by OpenAV, the target amounts would need to increase at least tenfold.

A tenfold increase in support would set the hourly rate at approx €12, which if worked for 40 hour weeks, 40 weeks a year, would result in a gross wage of €20,000.

The author feels that it is possible to achieve enough financial support to work full time on open source software using this release system.

6 Conclusion

This paper has presented the OpenAV release system, a new funding and release model that is geared towards small open source software projects.

A detailed procedure of how the OpenAV release system works is given. It was then discussed with regards to other funding and release systems, including Kickstarter, OpenInitiative and Snowdrift.

In the financial viability section the author draws from the experience gained from using the OpenAV release system for four software projects.

The author intends to continue using the OpenAV release model, perhaps one day being supported enough to work full time on open source projects.

7 Acknowledgments

Thanks to all financial contributors to OpenAV, all members of the linux audio community who have helped in designing features, testing code, and reporting bugs.

Thanks to all those who have contributed to the concept and philosophy behind the OpenAV release system, the conversations had have created the OpenAV release system.

Thank you all.

8 References

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