

How to Add Value with Agile Development using Open Source?

The word - “Agile” is creating a buzz in the industry of software development and other processes. This tech is responsible for producing software in quite a flexible and iterative manner to deliver value faster, reducing factors like risk management and allow adaptation to digital evolution more quickly.

Talking about open source software- it consists of characteristics that tend to afford their usage in several agile processes because they are standards-based, modular, element oriented. While it also has many potential that can be used in a new project, so the developers can avoid wasting their time in reinventing the wheel. There are hundreds or thousands of modules available for reuse on the internet- open source must be managed properly according to corporate policies and processes.

{Figure- Agile Methodologies}

Also, open source software has an associated licensing, security and management related issues that must be addressed so that a business can increase its velocity of agile development by reusing the already existing components. Additionally, without a digital process to manage license and element approval, it gets really impossible to efficiently avail the benefits of open source in agile development. This is because the businesses, in this case, are not able to work for the legal and corporate policy approvals in the small timeframes needed for the agile development sprints.

Our whitepaper here explains all the benefits of reusing the open source elements in projects implemented by agile development teams. They discuss the issues and risks that can be managed along with the highlights and benefits businesses can receive by leveraging open source elements. This concludes that with a brief case study that demonstrates the productivity gains that can be swiftly identified by assimilating agile development and open source software.

[The Benefits of Agile Development and Open Source Software](#)

Here, the combination of agile development and methodologies can be used to streamline software development, so that developers can transform more- and code less. It also allows businesses to:

Speeds up time According to Market:

Here, the developers can opt for a well-defined code to avoid the developing elements that are easily available. A cautious use of open source can free up several sources that may otherwise be disbursed in areas that do not offer added value to the customers or variation against the competitors. This further allows the team to quickly deliver the software and related functionality.

Upsurge Innovation and Highlighting Capabilities:

Developers can leverage the already existing open source software code in order to accelerate the delivery of functionality. Businesses can swiftly incorporate new features in each digital iteration and focus resources on innovation and reducing the risks involved in terms of features that are meant to be implemented.

Controlling Development- related Expenses:

Reusing the open source code provides the organizations to reduce the project cost while improving development and productivity. Agile development processes and a well-versed use of open source software allow you to build better software that is faster and quite affordable. To better understand such synergies, it is recommended to consider the insights of open source software and agile development processes.

Insights of Agile Software Development:

Agile Software Development generally refers to a group of software development processes that are based on similar theories. These methodologies promote a process that encourages constant accessibility of working software, regular testing and revision, a leadership philosophy that emboldens teamwork, accountability and more- a set of engineering best practices that allow quick delivery of well-designed software and an approach that aligns development with customer requirements and company-related goals.

There are a number of specific agile development methods. Agile development tends to involve execution in small growths with lightweight planning, rather than focusing on long-term planning and detailed documentation. Iterations somehow have sort timeframes; this typically lasts from one to four weeks accordingly.

Every iteration in the process is worked on by the team through a complete software development cycle; this includes planning, requirement analysis, coding, unit testing and more. Here, when a working code build is demonstrated to the

partners or stakeholders. This also helps to reduce the overall risk and allows the project to adapt to the transformation more efficiently.

Iteration may not add enough functionality in order to warrant releasing code, but the goal is to have an installable software release with minimal bugs at the end of each process. Also, multiple iterations are generally required to release a product or even a new functionality. There are a number of variations of agile development methodologies that include Scrum, Crystal Clear, Feature-Driven Development, and lean Software Development. These methodologies may include face-to-face communication among the team members. This may include the user/customer reps and the interested stakeholders as observers.

Also, in a brief meet up, team members tend to report each other about the tasks they performed yesterday, or what they intend to do today and not to forget the what roadblocks are- this daily communication helps to minimize problems from being hidden in the process. Agile methods highlight working software as the primary measures of progress. When combined with the preferences of the communication, agile methods generally produce less mentioned documentation than other methods.

In an agile process, documentation and artifacts of other projects are less valued than working software. The requirements are somehow bagged in acceptance criteria and testing practices. However, the management practices are a little different in agile development because of the dependent project variable is the time in conventional methodologies while it is considered as important aspect or functionality in agile processes.

The actual implementations are also a quite different when compared to conventional software development processes. They are horizontal or bottoms up kind of approaches while agile approaches are the other way round- yes they are vertical across all the layers along with the functionality expected to change throughout the development cycle and sources that are being refactored frequently.

Looking a Little Deeper into Open Source Software

Open source software had a radical impact on the software industry. Having the victory and ubiquity of open source projects, many businesses and other

commercial software development teams are now prefer taking a hybrid approach.

This includes mixing up the sources with internal code to condense software development schedules. However, open source software and a third party code introduce challenges and risks that must be taken care of, including license compulsions security susceptibilities and version proliferation.

Businesses need a robust process that allows people and policy administrators to interact and collaborate without affecting productivity to a halt. Open source software is somehow free, but hang on it is not a “free lunch” because it is not without obligations, and not without challenges. Having open source software, the human-readable source code is made available under a copyright license that meets the definition of open source. This must be distributed without an in-depth understanding, royalty, and then the distributor must make the source code for the software freely available.

Therefore, such projects are owned by their contributors, development organizations, and communities that can turn to open source software to quickly feature the functionality to other software applications. Some of the major features of open source software include as follow:

- **Modular:** The elements can be easily combined to quickly add functionality.
- **Planned for reuse:** The software developed during the process can be used for multiple applications that allow developers to easily add features and other functionality.
- **Standards-based:** Compliance with a standard-based structure allows an effectual use of code across several development companies.
- **Completely Transparent:** Open source software has its own source code, providing the team with clear insights into factors like quality and capabilities.

While open source offers a remarkable productivity improvement and opportunities, the ability to easily find and evaluate the best open source elements is the key to team’s productivity. It is impractical for any organization development to track and update the available open source code. Walkwel Technology offers an in-depth knowledge to help the developers to find and utilize the already available open source software. We continuously search the

trends related to open source and downloaded code. The result is the most comprehensive database of open source software and associated license along with other information.

Quickening Development Pace with Open Source

Open source software allows the development companies to accelerate the speed of the development cycle by using readily available elements so as to provide functionality that is defined in the user stories. The developer can search for the relevant elements; they can also leverage the information to assess the security and maturity of the code to understand the requirements.

The digital aspect of the process comes into action, especially when finding and evaluating the use of open source code. This is to accelerate the speed of development and accurately project the slope of the velocity curve based on the combination of open source components. Here, the team can strategize development trajectories that are based on the use of open source elements. So, by integrating the open source into agile development methodologies, companies can continuously improve software development results throughout the software development cycle.

Companies can effectively re-use the code, even if that code is not familiar to the business. Also, new techniques and skills are needed so that the company can get sorted through the massive amount of open source code available to choose the most desirable code. Walkwel Technology streamlines the ability in order to identify the suitable open source code by documenting them in our knowledge-base.

Once the business recognizes the open source “candidates” the developers can easily evaluate them to consider the quality and fit the code according to the scope of the project. Here, the team can efficiently estimate the license obligations in such a case as well. The team also requires evaluating the community behind the code to assess how well the code is maintained and how regularly it is updated.

We also support the new decision-making processes with our amazing management platform. So, finding and assessing open source- search and select time limits of the design along with the implementation phase (as shown in the figure below). When developers start using a number of elements the requirement of the automated approval process with legal as well as other management roles becomes really mandatory.

{Figure- Similar to the whitepaper}

Likewise producing an audit related to open source use and the ability to authenticate that what is being launched complies with what was approved is unrealistic using the manual ways like monitoring a number of open source components for updates and security vulnerabilities. Additionally, validating that the code complies with the export restrictions on cryptographic code generally needs similar digital techniques. The discovery of open source and cryptography in a provided code base is generally allied with the baselining code for references in future, or for a due industry request.

We offer a well-versed yet integrated product portfolio that allows you to accelerate software development velocity. Somehow, in such a case the outcomes can be quite dramatic. Not only organizations can accelerate software development outcomes, but they can also reduce development-related expenses. In the real-world customer example, at Walkwel a client was observed an 88% of savings in development costs along with staff months by leveraging open source elements.

We aim to help companies significantly to reduce the development and related expenses while accelerating their ability to incorporate more dynamic features in the products we design. Walkwel Technology can also help your organization to realize the promise of agile development practices that can be effectively enhanced by the hybrid approach, where internally the advanced code is buttressed by the use of open source software.

Conclusion

Virtually all industries now play a critical role in a company's success. So, whether you develop software for internal use or to boost sales of your organization, the ability to quickly deliver high-quality, secure software is serious to success.

Numerous development teams have discovered that they can quicken their improvement procedure by including segments of open source and a third-party code as an element of their general arrangement. The utilization of open source and outsider code makes licensing and security issues of its own. Unmanaged utilization of an externally sourced code can bargain protected innovation rights, make obscure license commitments and present concealed security dangers.

Open source can help designers significantly enhance the speed of agile software development so they can deliver more code quickly and lessen the expenses involved while concentrating on building assets on creating resourceful highlights that improve the estimation of the application to the business.

Organizations can reuse the developed code and quicken the prototyping of new usefulness, and they can gain more prominent adaptability to develop prototypes to help to feature the component necessities. Yet, open source like presents new difficulties or challenges, essentially in the areas of:

- Management
- Compliance
- Security

The smart reuse of the open source elements increases the velocity of agile development process initiatives and allows development teams to avail benefits from the methodologies while enabling the compliance with the company's policies and licensing requirements. Innovative solutions from Walkwel Technology help other organizations to accelerate software development in terms with products and services for finding, deploying and managing open source software.

We make sure that the company fulfills the promise of increased flexibility by using agile development by allowing businesses to effectively leverage open source software according to policies and procedures to increase the velocity of software development.