



COPLAM - Continuous Planning Adoption Method

Rafaela Fonseca Sampaio
Programa de Pós-Graduação em
Informática/UNIRIO
Rio de Janeiro RJ Brazil
rafaela.sampaio@uniriotec.br

Cristina Cerdeiral
Programa de Pós-Graduação em
Informática/UNIRIO
Rio de Janeiro RJ Brazil
gleison.santos@uniriotec.br

Gleison Santos
Programa de Pós-Graduação em
Informática/UNIRIO
Rio de Janeiro RJ Brazil
gleison.santos@uniriotec.br

ABSTRACT

Background: Many organizations face business environments in constant change nowadays. Software development in dynamic contexts like these are subjected to the necessity of being adapted according to internal and external events to the organization and that can affect planning. Events can be changes in clients' needs, new technology available, legislations, competitors' releases, etc. Agile methods became popular by focusing on flexibility and constant adaptation, however, project planning still lacks approaches to support the continuous evolution of plans. Continuous planning refers to the planning process in rapid and parallel cycles in a way that plans evolve according to the events. It is relatively new and not a well-established practice in the literature, there is a lack of approaches to guide continuous planning adoption, especially in planning levels besides release planning.

Goal: COPLAM was proposed to help organizations on continuous planning adoption in the team level of agile software development, which covers release, iteration and day, according to organization context and projects.

Method: We used Design Science Research (DSR) [1] as research method. To define and evaluate the proposed solution, the following steps were followed [2]:

- Literature review to gather information about continuous planning concepts and its application at the project level as well guidelines on how to apply continuous planning in practice.
- Action research study on continuous planning adoption in an agile software development project aiming at identifying strengths and weaknesses regarding continuous planning adoption.
- Development of the method, idealizing the method phases and creating the material to explain and instruct its use, as phases descriptions and artifacts.

- Case study for evaluation of the method, applying COPLAM in industry at the same organization as the action research study but in a different context and with the method execution conducted by someone other than the researcher.

Results: Using COPLAM allowed the project planner to define planning cycles for projects and evolve plans according to events. The perceptions of usefulness, ease of use and self-predicted future usage were evaluated by the Technology Acceptance Model (TAM) and improvements identified in the results were executed for future applications of the method.

Conclusion: From these results, we have evidences that the method can support the adoption of continuous planning in the team level and it was successfully applied in industry. COPLAM was able to support the definition of plans in rapid and parallel cycles and the management of events along plans' execution.

CCS CONCEPTS

• **Software and its engineering** → **Software creation and management** → Software development process management

KEYWORDS

Continuous Planning, Agile Software Development, Project Planning, Team Level Planning

ACM Reference format:

Rafaela Fonseca Sampaio, Cristina Cerdeiral, Gleison Santos. 2018. SBQS Proceedings Paper in word Format. In Proceedings of XVII Brazilian Symposium on Software Quality, Curitiba, São Paulo, Brazil, October 2018 (XVII SBQS), 1 page. <https://doi.org/10.1145/1234>

REFERENCES

- [1] A. R. Hevner, 2007, A Three Cycle View of Design Science Research: Scandinavian Journal of Information Systems, v. 19, no. 2, p. 87–92.
- [2] R. F. Sampaio, "COPLAM - Continuous Planning Adoption Method," Master's Dissertation, UNIRIO, 2017.

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

XVII SBQS, October, 2018, Curitiba, Paraná Brazil

© 2018 Copyright held by the owner/author(s). 978-1-4503-0000-0/18/06...\$15.00