

Looking for a modular software development methodology. Blending of feature-oriented programming and aspect-oriented programming JPI [En Búsqueda de un Procedimiento de Desarrollo de Software Modular. Simbiosis entre Programación Orientada a la Característica y Programación Orientada a Aspectos JPI]

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Looking for a methodology of modular software development, this work proposes JPI-FM for the collaborative modeling of modular solutions in a blending of Join Point Interfaces JPI and Feature-Oriented Programming FOP. A FOP and AOP symbiosis would allow to achieve the advantages and scope of both approaches. That is, a high modularity for the heterogeneous collaboration between classes and high repetition of behavior with FOP. Also, a high modularity for the homogeneous collaboration between classes and the implicit dependencies between components with traditional AOP, is also obtained. Examples are provided showing the advantages of this fusion in the modular and structural representation of SPL, to highlight the benefits of this symbiosis. The results only support the above statement and constitute the basis for a JPI-FOP software development methodology. © 2019 Centro de Informacion Tecnologica. All rights reserved.

AOP

Crosscutting concern

FOP

JPI

Modular software

Blending

Software design

Collaborative model

Cross-cutting concerns

Feature-oriented programming

Heterogeneous collaboration

Modular softwares

Modular solution

Software development methodologies

Structural representation

Aspect oriented programming