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"Um Design Pattern para a Configuração de Arquiteturas de Software"

This work initially presents a survey on software architectures and patterns. We deal with the description of architectures and the organization of their basic elements, including the concept of patterns and the mechanisms to describe them. In addition, we consider the possibility of integrating patterns into software architectures. Further on, we present a proposal of a design pattern to organize, in the implementation level, the components and connectors included in the configuration of a software architecture. The proposed design pattern, which we call the *Architecture Configurator*, supplies a basis for the implementation of architectural configurations, using the mechanisms of interception, guiding and manipulation of requests, as well as supporting the interconnection of components and connectors. These mechanisms are applied in a transparent fashion to the basic elements of a software architecture, supporting properties such as reuse, abstraction and separation of concerns. The proposed design pattern allows the components and connectors to be implemented separately and to be integrated into an architectural configuration at a later stage. In the proposal, we associate the elements that compose a software architecture and the elements defined in the *Architecture Configurator*. After that, we present the design pattern, describing its definition elements: context, problem, solution, diagrams UML, as well as the details related to its implementation. Finally, we describe examples of applications, whose architectures were implemented using the design pattern *Architecture Configurator*.