Abstract

Software product line engineering (SPLE), through the modeling of commonality and variability in a product family, offers a systematic solution to build a group of similar products at reduced development complexity and time to market due to their synergy and common goals.

SPL models are often used to develop adaptive and configurable software systems such as a family of product lines. SPLE is usually implemented using different models. Implementing SPLE is very challenging. Different models are used to implement SPLE. Feature models are very prevalent nowadays because it helps to emulate the broad-view of product management, product design, and architecture and product configuration. This paper takes the case study of developing a family of UAV system using Improved Software Product Line (ISPL) via feature modeling. It shows how SPLs can be perceived as feature diagrams using feature modeling tool FeatureIDE to facilitate the development of product line family.
References


17. Czarnecki, K., Eisenecker, U.W.: Generative Programming: Methods, Tools, and
Applications. Addison-Wesley, Boston (2000)


Index Terms

Computer Science

Information Sciences

Keywords

Software Product lines, SPL, feature modeling, UAV family, case study.