A Tool for Generating Specifications from a Family of Formal Requirements

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Abstract

Telephony features are related to components, and telephony users expect quite dependable systems. Feature interaction problems increasingly impair their service. We propose a formal requirements specification methodology that avoids some of the feature interaction problems from the beginning, and that converts some more into type errors. We maintain all the variants and versions of such a system together as one family of formal specifications. For this, we define a formal feature combination mechanism. We present a tool which checks for feature interaction problems, which extracts a desired family member from the family document, and which generates documentation on the structure of the family. We also report on a quite large case study.