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Un analizador de modelos de variabilidad basado en el árbol de características

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Resumen

Un árbol de características generalizado (GFT) es un modelo de variabilidad en el que las restricciones textuales han sido eliminadas manteniendo la semántica del modelo. La ventaja de un GFT es que se puede analizar directamente razonando sobre las relaciones jerárquicas del árbol de características, sin tener que transformar el modelo a SAT o construir un árbol de decisión binario (BDD). Las desventajas de un GFT son que puede contener características duplicadas y que su tamaño en número de características con respecto al modelo de variabilidad original es considerablemente mayor, lo que complica el análisis automático. En este artículo se propone un analizador de modelos GFT basado en las relaciones jerárquicas del árbol de características teniendo en cuenta la existencia de características duplicadas. Se definen un conjunto de operaciones de análisis sobre GFT y se compara su eficiencia con solvers SAT y BDD. El solver GFT mejora la eficiencia del análisis sobre solvers BDD para modelos de hasta diez mil características.

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