

Introduction

Rapid technological advances and high customer expectations have been driving companies to build highly configurable products with an increasing number of product features and options in all domains of the product.

A product variant is a specific configuration of a product for certain option choices, such as size Medium and color Red. The complexity of product variants grows exponentially with the number of features available in the product, and the number of options within each feature. The complexity is multiplied by the time dimension, where new features and options are introduced, or existing features and options are obsoleted. Constraints, driven by Marketing, Engineering, etc. organizations, restrict the set of allowed or compatible option combinations.

Configurator Services, built into the Aras PLM Platform, is the enabler to develop variant management applications to manage product complexity. The configurator uses a rule-based configuration paradigm and has a built-in Boolean Satisfiability (SAT) Solver.

Using Configurator Services, customers can define any data model and business logic to meet business processes. For instance, companies may be managing their products by platforms, product lines, product models, systems/subsystems, or other product groupings. Product features, options and constraints/rules can be defined at all relevant levels for these structures. Configurator Services provides the means to implement server method to translate business data into input data for configurator APIs.

Using Configurator Services, you can:

- Validate variability definitions
- Solve variability problems to find a list of valid options
- Get reasons for invalid options

