Support for Correct Evolution of Software Product Lines

Vision
- Automatic developer evolution support
- Prevent loss of consistency between variability model and code during product line evolution
- Simplify detection and reduce complexity by focus on change sets

Focus
- Embedded systems
- Preprocessor directives & configuration variables
- Large-scale, non-Boolean variability models

Approach
- Analysis of variability models
- Analysis of variability information from code
- Pairwise consistency
- Conditional consistency of changes (if initially consistent)
- Support for non-Boolean variability at different binding times
- Identification of typical code modification problems (variability smells)

Case Studies
- Initial case studies based on open source repositories (e.g., Linux)
- Focus of case studies based on embedded systems
- Industrial case studies from associated partners (automation and automotive systems)

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