

Software Language Engineering in the Large: Towards Composing
and Deriving Languages

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Highlights

- Comprehensive overview of language engineering techniques, challenges, and techniques applied in the field.
- Addresses three quintessential challenges in software language engineering: 1. How to design new DSLs that fit specific purposes? 2. How to engineer a DSL from predefined components? 3. How to derive DSLs from other DSLs?
- To this end, presents a real-world example of language creation, language composition, and language derivation with the MontiCore language workbench.
- Describes a comprehensive approach to language derivation using both, abstract syntax and concrete syntax of the base language, carefully describes elements of domain-specific transformation languages, explains application through real-world example MontArcTL.
- Comprehensive discussion of other approaches to language derivation.

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