

Protocol Verification Language

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AdımODTÜ Undergraduate Research



Project and Team

Protocol Verification Language(PVL)

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Project Objectives

Research Objectives

- Creating a Domain-Specific Programming Language for Network Protocol Implementations
- Verification of Programs with Against Their Formal Semantics Using Formal Verification Techniques



Project Activities

Design Activities

- Design of PVL
- Design of Formal Specification Language
- Design of Formal Verification Engine



Project Activities

Implementation Activities

- Implementation of PVL Compiler and related components
- Implementation of Formal Verification Engine



Project Planning

Time-Planning

Language Design	Mostly Finished
Compiler Code Generation	3 Months
Formal Specification Language Design	2 Months
Formal Verification Engine Design	2 Months
Formal Verification Engine Implementation	6 Months



Project Planning

Budget-Planning

- 4 HiFive1 Rev B Risc-V Boards of price \$59
- $59 \times 4 + 12(\text{shipping}) = \248

