

STUNIR Project Completion Summary

Date: January 28, 2026

Branch: devsite

Commit: 6ef33db

✓ Test Results

Enhancement Tests (5/5 Passed)

Test	Status
Control Flow Translation	✓ PASSED
Type Mapping	✓ PASSED
Semantic Analysis	✓ PASSED
Memory Management	✓ PASSED
Optimization Passes	✓ PASSED

Code Generation Test (6/8 Targets)

Target	Status	Output
Rust	✓	356 chars
C99	✓	318 chars
C89	✓	318 chars
x86 ASM	✓	565 chars
ARM ASM	✓	595 chars
Mobile	✓	34 chars
WASM	✗	Import issue
Embedded	✗	Syntax issue

GitHub Push Status

Successfully pushed to GitHub!

```
To https://github.com/emstar-en/STUNIR.git
c85359f..6ef33db  devsite-clean -> devsite
```

What's Been Achieved

Phase 1: Foundation (EnhancementContext & Pipeline)

- tools/integration/enhancement_context.py - Context management
- tools/integration/enhancement_pipeline.py - Code generation pipeline
- tools/emitters/base_emitter.py - Base emitter infrastructure

Phase 2: Basic Code Generation

- Python, Rust, Go, C99 support
- Type mapping for each target language
- Statement translation framework

Phase 3: Advanced Code Generation

- Control flow (if/else, while, for, switch)
- 8 target languages total
- Memory management patterns
- Optimization passes

Complete STUNIR Phases 1-8

Phase	Description	Issues
1	Core Tools Pipeline	10
2	Contracts & Validation	7
3A/3B	Target Generation	14 targets
4	Manifest System	8
5	Test Vectors	6
6	Spec & Inputs	7
7	Documentation	11
8	Final Issues + ASM	9

Total: 68 issues resolved

Project Statistics

- **Files Changed:** 857
 - **Lines Added:** 105,007
 - **Lines Removed:** 2,180
 - **New Directories:** 50+
 - **Target Emitters:** 14
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Repository

GitHub: <https://github.com/emstar-en/STUNIR/tree/devsite>

Summary generated automatically