

# 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

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

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## Repository

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

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Summary generated automatically