

# Risk - V Superscalar Simulation

Generated: 2025-02-23 00:03:20

## 1. Program Information

| Index | Instruction |
|-------|-------------|
| 0000  | 0x430820    |
| 0001  | 0xa62022    |
| 0002  | 0xe83820    |
| 0003  | 0x12a5022   |

## 2. Performance Analysis

| Metric       | Value |
|--------------|-------|
| Total Cycles | 7     |
| Instructions | 4     |
| CPI          | 1.75  |
| Efficiency   | 28.6% |

## 3. Pipeline Stages Analysis

| Stage | Instructions      |
|-------|-------------------|
| IF    | 4392992, 10887202 |
| ID    | NOP, NOP          |
| EX    | NOP, NOP          |
| MEM   | NOP, NOP          |
| WB    | NOP, NOP          |

| Stage | Instructions       |
|-------|--------------------|
| IF    | 15218720, 19550242 |
| ID    | ADD, SUB           |

# Risk - V Superscalar Simulation

Generated: 2025-02-23 00:03:20

|     |          |
|-----|----------|
| EX  | NOP, NOP |
| MEM | NOP, NOP |
| WB  | NOP, NOP |

| Stage | Instructions |
|-------|--------------|
| IF    | NOP, NOP     |
| ID    | ADD, SUB     |
| EX    | ADD, SUB     |
| MEM   | NOP, NOP     |
| WB    | NOP, NOP     |

| Stage | Instructions |
|-------|--------------|
| IF    | NOP, NOP     |
| ID    | NOP, NOP     |
| EX    | ADD, SUB     |
| MEM   | ADD, SUB     |
| WB    | NOP, NOP     |

| Stage | Instructions |
|-------|--------------|
| IF    | NOP, NOP     |
| ID    | NOP, NOP     |
| EX    | NOP, NOP     |
| MEM   | ADD, SUB     |
| WB    | ADD, SUB     |

| Stage | Instructions |
|-------|--------------|
| IF    | NOP, NOP     |
| ID    | NOP, NOP     |
| EX    | NOP, NOP     |
| MEM   | NOP, NOP     |

# Risk - V Superscalar Simulation

Generated: 2025-02-23 00:03:20

| WB    | ADD, SUB     |
|-------|--------------|
| Stage | Instructions |
| IF    | NOP, NOP     |
| ID    | NOP, NOP     |
| EX    | NOP, NOP     |
| MEM   | NOP, NOP     |
| WB    | NOP, NOP     |