

1 main — MIR Walkthrough

Purpose: TODO: Describe why this walkthrough exists

1.1 Source Context

```
assert!(a + b == 4.7);

let c:f64 = 3.5;
let d:f64 = 1.2;

assert!(c + d == 4.7);
}
```

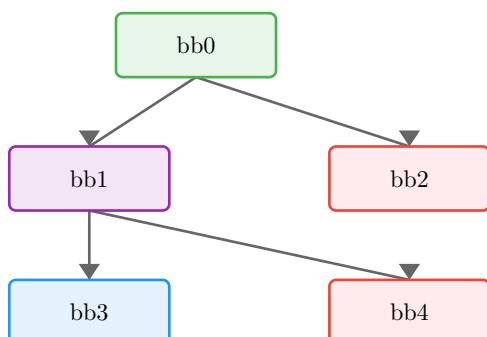
1.2 Function Overview

- **Function:** main
- **Basic blocks:** 5
- **Return type:** () (0 bytes, align 1)
- **Notable properties:**
 - Contains panic path
 - Has conditional branches

1.3 Locals

Local	Type	Notes
0	() (0 bytes, align 1)	Return place
1	Bool	
2	Float(F32)	
3	Float(F32)	
4	Float(F32)	
5	()	
6	Bool	
7	Float(F64)	
8	Float(F64)	
9	Float(F64)	
10	()	

1.4 Control-Flow Overview



1.5 Basic Blocks

1.5.1 bb0 — entry

Entry point of the function.

MIR	Annotation
<code>_3 = 1080033280</code>	Load constant
<code>_4 = 1067030938</code>	Load constant
<code>_2 = move _3 + move _4</code>	Add operation
<code>_1 = move _2 == 1083598438</code>	Equal operation
<code>→ switch(move _1) [0→bb2; else→bb1]</code>	Branch on move <code>_1</code>

1.5.2 bb1 — branch point

MIR	Annotation
<code>_8 = 4615063718147915776</code>	Load constant
<code>_9 = 4608083138725491507</code>	Load constant
<code>_7 = move _8 + move _9</code>	Add operation
<code>_6 = move _7 == 4616977747989548237</code>	Equal operation
<code>→ switch(move _6) [0→bb4; else→bb3]</code>	Branch on move <code>_6</code>

1.5.3 bb2 — panic path

Panic/diverging path.

MIR	Annotation
<code>→ _5 = panic([16 bytes])</code>	Call panic

1.5.4 bb3 — return / success

Normal return path.

MIR	Annotation
<code>→ return</code>	Return from function

1.5.5 bb4 — panic path

Panic/diverging path.

MIR	Annotation
<code>→ _10 = panic([16 bytes])</code>	Call panic

1.6 Key Observations

TODO: Add bullet points summarizing what this MIR teaches

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1.7 Takeaways

TODO: One or two sentences to generalize this example

