

1 main — MIR Walkthrough

Purpose: TODO: Describe why this walkthrough exists

1.1 Source Context

```
    assert!(sum(20, 22) == 42);  
}
```

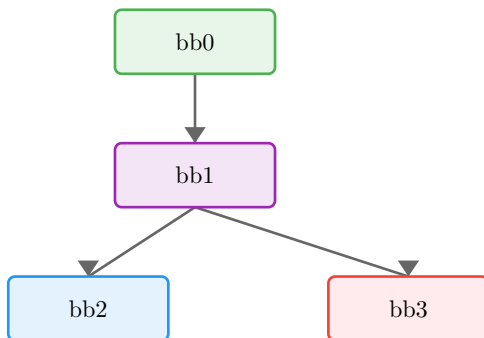
1.2 Function Overview

- **Function:** main
- **Basic blocks:** 4
- **Return type:** ()
- **Notable properties:**
 - Contains panic path
 - Introduces borrows
 - Has conditional branches

1.3 Locals

Local	Type	Notes
0	()	Return place
1	{closure\@tests/integration/programs/closure-args.rs:2:15: 2:28}	
2	i32	
3	&{closure\@tests/integration/programs/closure-args.rs:2:15: 2:28}	
4	(i32, i32)	
5	!	

1.4 Control-Flow Overview



1.5 Basic Blocks

1.5.1 bb0 — entry

Entry point of the function.

MIR	Annotation
<code>_3 = &_1</code>	Shared borrow
<code>_4 = Tuple(20, 22)</code>	Construct aggregate
<code>→ _2 = call(move _3, move _4) → bb1</code>	Call call

1.5.2 bb1 — branch point

MIR	Annotation
→ switch(move _2) \[42→bb2; else→bb3\]	Branch on move _2

1.5.3 bb2 — return / success

Normal return path.

MIR	Annotation
→ return	Return from function

1.5.4 bb3 — panic path

Panic/diverging path.

MIR	Annotation
→ _5 = panic(\[16 bytes\])	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

2 {closure#0} — MIR Walkthrough

Purpose: TODO: Describe why this walkthrough exists

2.1 Source Context

```
fn main() {  
    let sum = |x, y| -> i32 { x + y };  
}
```

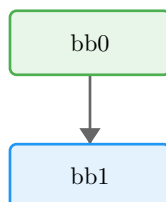
2.2 Function Overview

- **Function:** {closure#0}
- **Basic blocks:** 2
- **Return type:** i32
- **Notable properties:**
 - Contains panic path
 - Uses checked arithmetic
 - Contains assertions

2.3 Locals

Local	Type	Notes
0	i32	Return place
1	&{closure\@tests/integration/programs/closure-args.rs:2:15: 2:28}	
2	i32	
3	i32	
4	(i32, bool)	

2.4 Control-Flow Overview



2.5 Basic Blocks

2.5.1 bb0 — entry

Entry point of the function.

MIR	Annotation
<code>_4 = checked(_2 + _3)</code>	Checked Add (may panic)
<code>→ assert(move _4.1 == false) → bb1</code>	Panic if move _4.1 is true

2.5.2 bb1 — return / success

Normal return path.

MIR	Annotation
<code>_0 = move _4.0</code>	Move value
<code>→ return</code>	Return from function

2.6 Key Observations

TODO: Add bullet points summarizing what this MIR teaches

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2.7 Takeaways

TODO: One or two sentences to generalize this example

