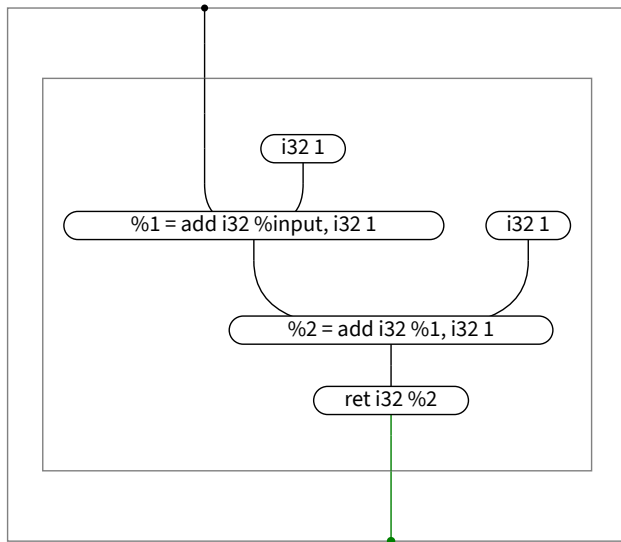# sd-visualiser: Interactive graph visualisation for SSA-based IRs

Alex Rice, Nick Hu, Calin Tataru

EuroLLVM 2025

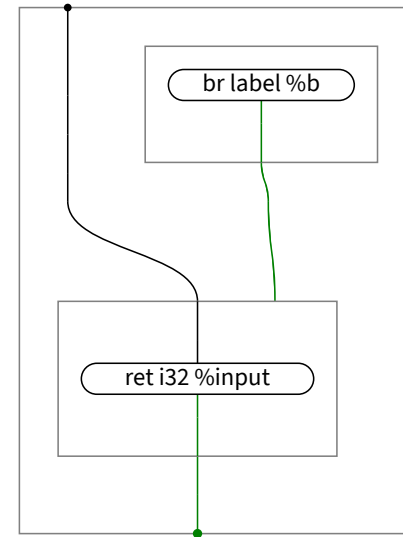# Intermediate representations as a graph
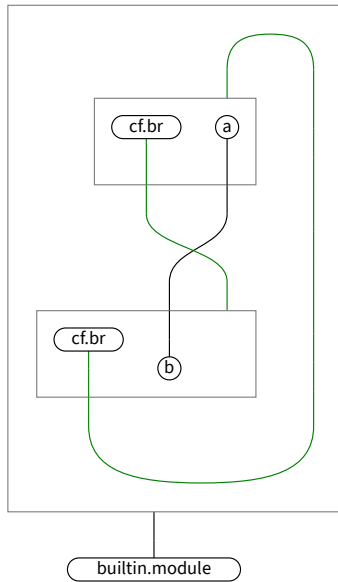
**Data flow**

**Control flow**



Data flow graph:
- i32 1
- %1 = add i32 %input, i32 1
- i32 1
- %2 = add i32 %1, i32 1
- ret i32 %2

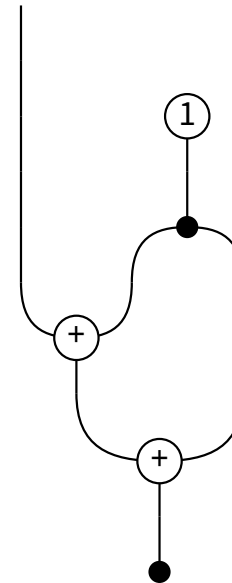Control flow graph:
- br label %b
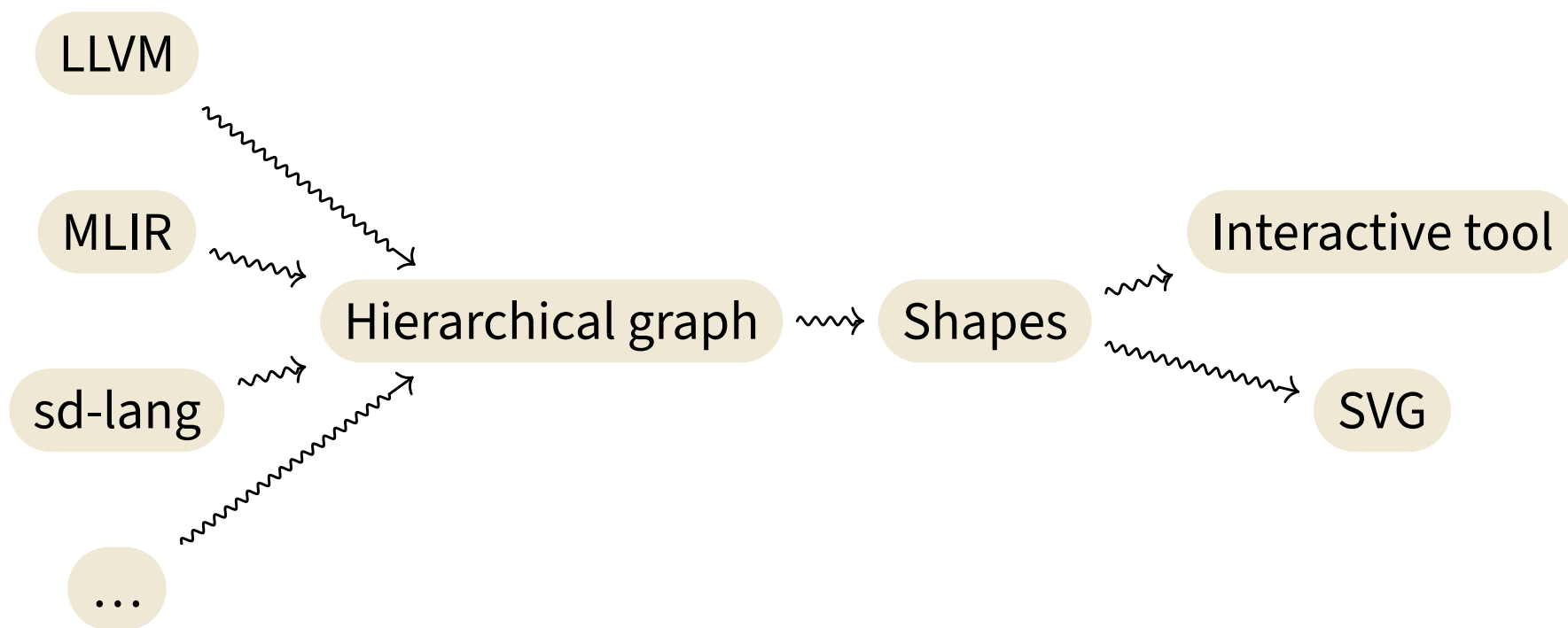- ret i32 %input

# Representing IR features

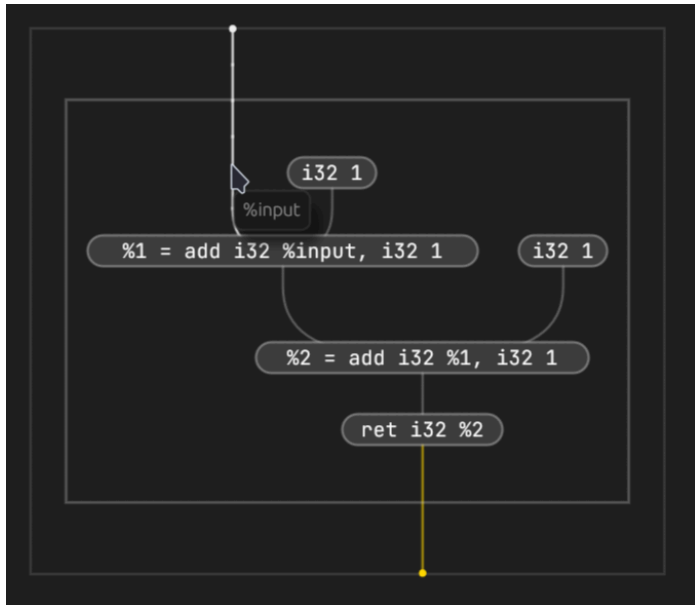Blocks and regions

Copying and deletion

# Visualising IRs

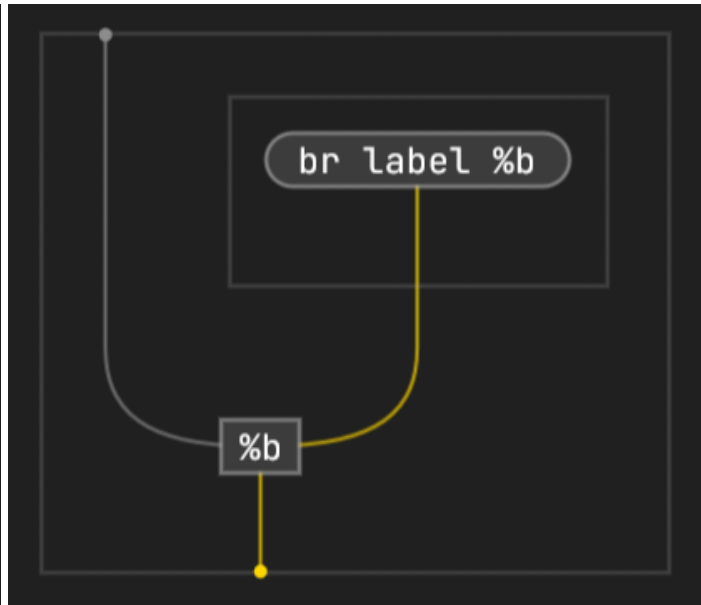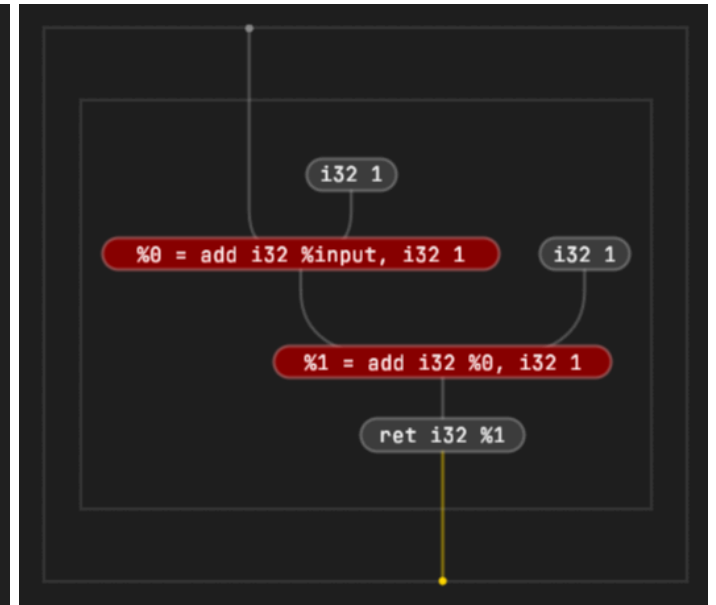# Interactive features

## Highlighting



## Collapsing



## Searching

# Try the tool today!

https://sd-visualiser.github.io/sd-visualiser