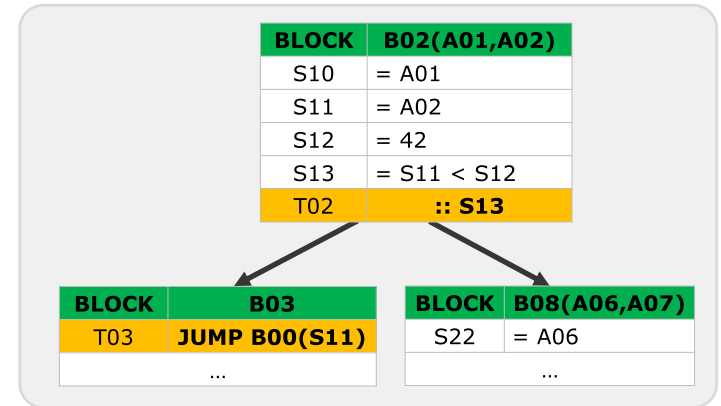


Securify v2.0: System overview

```
contract ToyExample{  
  
  function inc(uint x) returns (uint) {  
    return x+1;  
  }  
  
  function main() external {  
    uint res;  
    for(uint i = 0; i < 42; i++) {  
      res = inc(i);  
      require(res > 0);  
    }  
  }  
}
```

Solidity code

1. compile



Intermediate representation

2. static analysis



assign(S10, A01), **assign**(S11, A02), ...
follow(S11, S10), **follow**(S12, S11), ...
bop(S13, S11, S12, <), ...
branch(T02_T, T02_F, B02, B03, B08, S13)
mustFollow(S11, S10),
mustFollow(S12, S10) ...
mayFollow(S11, S10),
mayFollow(S12, S10) ...
mayDepOn(S13, A01),
mayDepOn(S13, A02) ...

Semantic facts

Datalog

3. check patterns



TOTAL issues	4
Transaction Reordering	1
Transactions May Affect Ether Amount info ^	
The use of concurrency is discouraged in chaincode.	
SimpleBank:10	
Recursive Calls	
Gas-dependent Reentrancy info ^	
The use of concurrency is discouraged in chaincode.	
SimpleBank:10	

Security report