Algorithms for Software Model Checking: Predicate Abstraction vs. IMPACT

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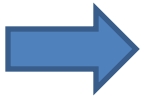
! irk " e#er

Software $erification

C program

```
int main() {
  int x = 10;
  int y = 3;
  int z = x+y;
  assert(z > 0);
```

Specification



$erification Tool

i.e.% assertions cannot be violated

&eneral method:
Create an overappro'imation of the program states

Predicate Abstraction

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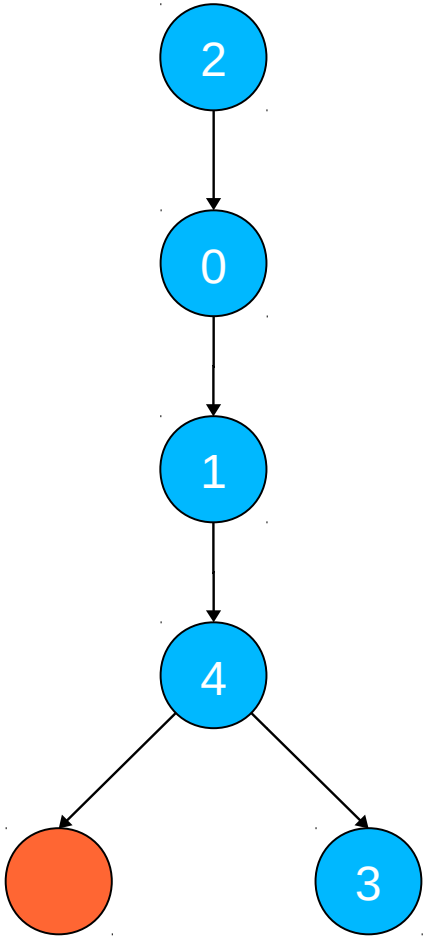

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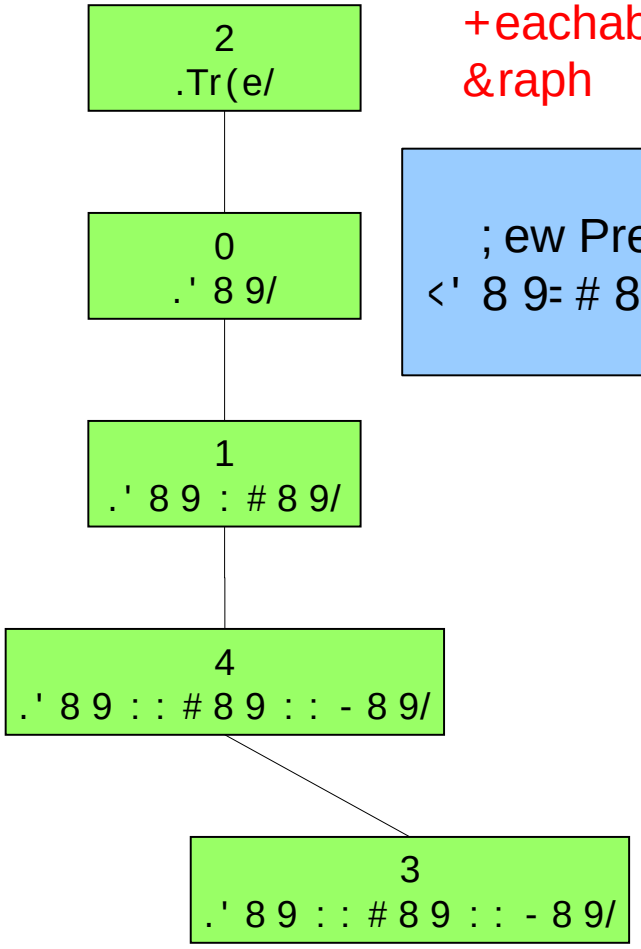

; ew Precision:
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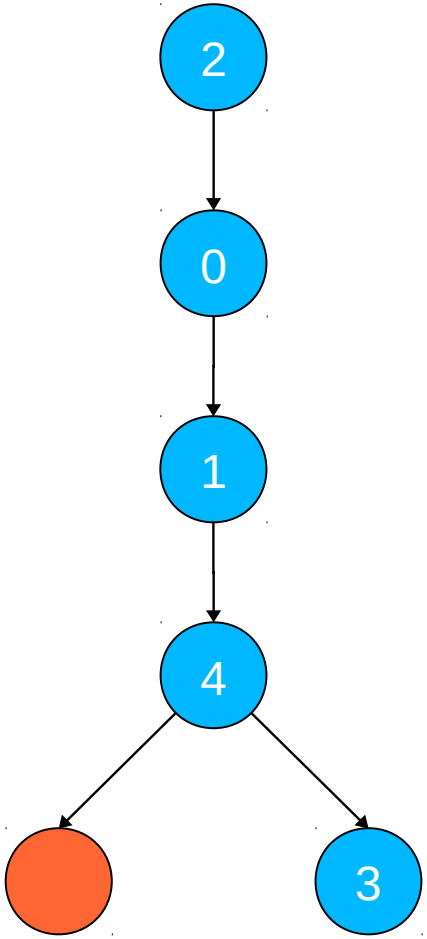

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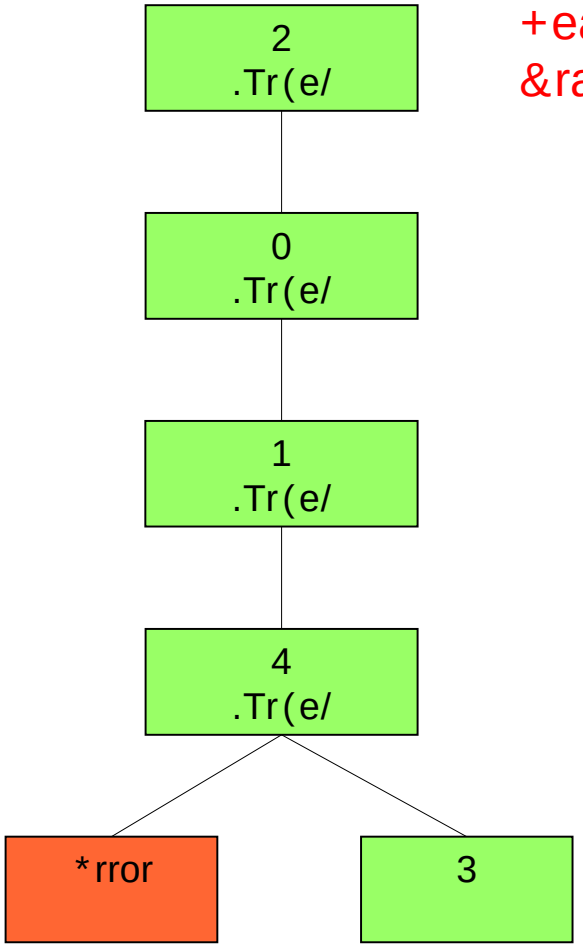

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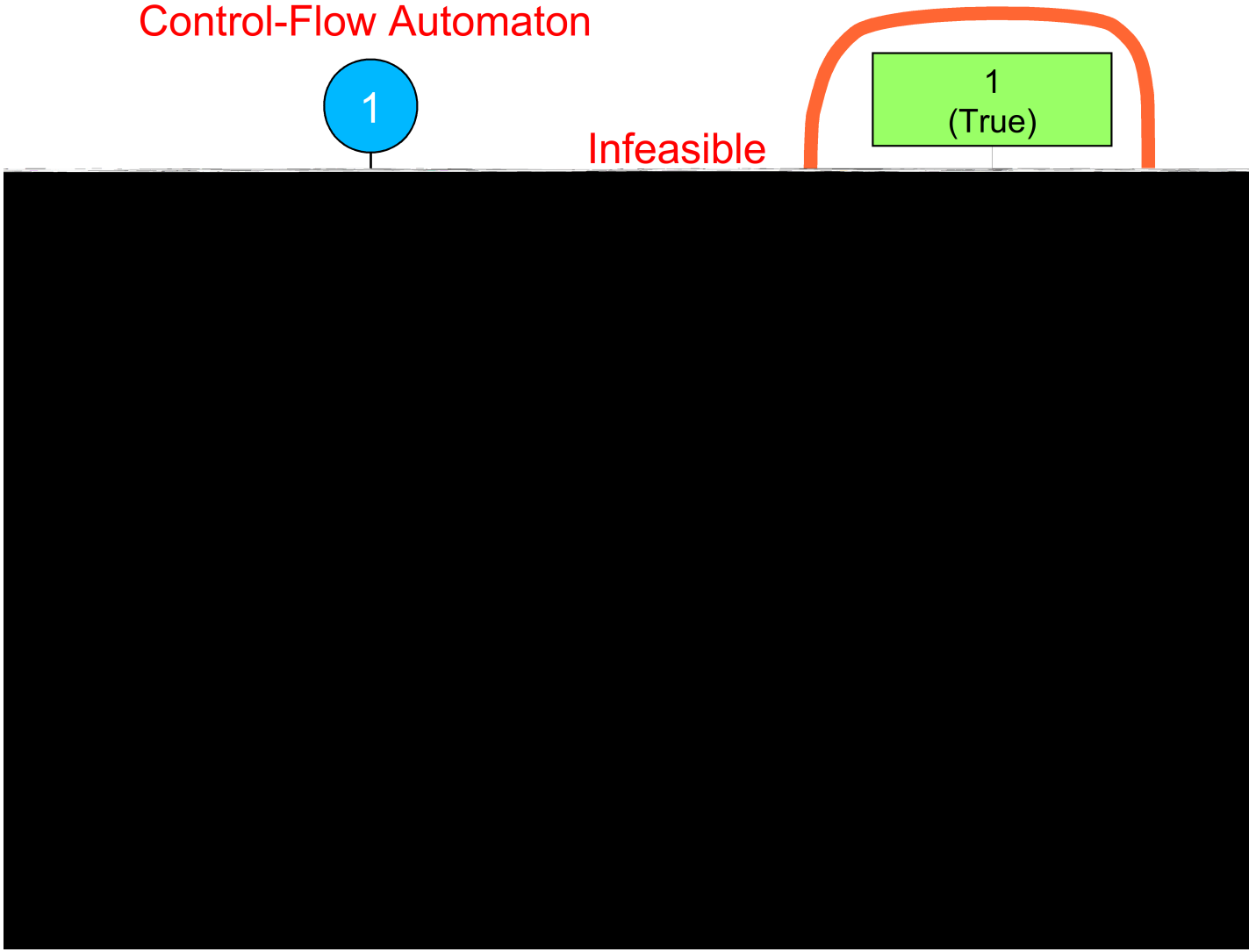

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