

Load JSON Model:

Choose File

Model 1.json

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4"],
    "transitions": ["s1,s2", "s1,s3", "s3,s4", "s4,s2", "s2,s3"],
    "atoms": [{"s1": ["p","q"]}, {"s2": ["q","t","r"]}, {"s3": []}, {"s4": ["t"]}]}
}
```

Select state:

s1

EG(r->t)

Verify Formula

Save Model

Validation Results:

Phi - EG(r->t) holds for state s1!

Load JSON Model:

Choose File

No file chosen

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s0", "s1", "s2", "s3"],
    "transitions": ["s0,s1", "s0,s3", "s1,s1", "s1,s2", "s2,s0","s2,s3","s3,s0"],
    "atoms": [{"s0": ["p","q"]}, {"s1": ["r"]}, {"s2": ["p","t"]}, {"s3": ["q","r"]}]}
}
```

Select state:

s0

EXEXr

Verify Formula

Save Model

Validation Results:

Phi - EXEXr holds for state s0!

Load JSON Model:

Choose File

Model 2.json

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s0", "s1", "s2", "s3"],
    "transitions": ["s0,s1", "s0,s3", "s1,s1", "s1,s2", "s2,s0","s2,s3","s3,s0"],
    "atoms": [{"s0": ["p","q"]}, {"s1": ["r"]}, {"s2": ["p","t"]}, {"s3": ["q","r"]}]}
}
```

Select state:

s0

AXr

Verify Formula

Save Model

Validation Results:

Phi - AXr holds for state s0!

Load JSON Model:

Model 3.json

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7", "s8", "s9", "s10"],
    "transitions": ["s1,s2", "s2,s3", "s3,s4", "s4,s3", "s2,s5", "s5,s6", "s6,s7", "s7,s6", "s5,s8", "s8,s10",
"s9,s10", "s10,s9", "s9,s8"],
    "atoms": [{"s1": [], {"s2": ["p"], {"s3": ["p","q"], {"s4": ["q"], {"s5": ["p"], {"s6": ["p","q"], {"s7":
["p"], {"s8": ["p","q"], {"s9": ["p","q"], {"s10": ["p","q"]}]
    }
  }
}
```

Select state:

s10

Validation Results:

Phi - AGq holds for state s10!

Load JSON Model:

Model 3.json

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7", "s8", "s9", "s10"],
    "transitions": ["s1,s2", "s2,s3", "s3,s4", "s4,s3", "s2,s5", "s5,s6", "s6,s7", "s7,s6", "s5,s8", "s8,s10",
"s9,s10", "s10,s9", "s9,s8"],
    "atoms": [{"s1": [], {"s2": ["p"], {"s3": ["p","q"], {"s4": ["q"], {"s5": ["p"], {"s6": ["p","q"], {"s7":
["p"], {"s8": ["p","q"], {"s9": ["p","q"], {"s10": ["p","q"]}]
    }
  }
}
```

Select state:

s7

Validation Results:

Phi - AGq does NOT hold for state s7.

Load JSON Model:

Model 4.json

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7", "s8", "s9"],
    "transitions": ["s1,s2", "s2,s3", "s3,s4", "s5,s4", "s2,s5", "s4,s6", "s8,s2", "s1,s6", "s6,s7", "s7,s8",
"s9,s8", "s6,s9"],
    "atoms": [{"s1": ["n1", "n2", "0"], {"s2": ["t1", "n2", "1"], {"s3": ["c1", "n2", "1"], {"s4": ["c1", "t2", "1"],
{"s5": ["t1", "t2", "1"], {"s6": ["n1", "t2", "2"], {"s7": ["t1", "t2", "2"], {"s8": ["t1", "c2", "2"], {"s9": ["n1", "c2", "2"]}]
    }
  }
}
```

Select state:

s8

Validation Results:

Phi - AG(t1 -> AF c1) holds for state s8!

Load JSON Model:

Choose File Model 5.json

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7"],
    "transitions": ["s1,s2", "s1,s3", "s2,s4", "s2,s5", "s3,s6", "s3,s7"],
    "atoms": [{"s1": []}, {"s2": ["p"]}, {"s3": ["p"]}, {"s4": ["p"]}, {"s5": []}, {"s6": []}, {"s7": []}]
  }
}
```

Select state:

s2

AXp

Verify Formula

Save Model

Validation Results:

Phi - AXp does NOT hold for state s2.

Load JSON Model:

Choose File Model 6.json

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7"],
    "transitions": ["s1,s2", "s1,s3", "s2,s4", "s2,s5", "s3,s6", "s3,s7"],
    "atoms": [{"s1": []}, {"s2": []}, {"s3": []}, {"s4": ["p"]}, {"s5": ["p"]}, {"s6": ["p"]}, {"s7": []}]
  }
}
```

Select state:

s6

EFp

Verify Formula

Save Model

Validation Results:

Phi - EFp holds for state s6!

Load JSON Model:

Choose File Model 3.json

CTL JSON

CTL Graph

Raw Model Definition:

```
{
  "kripke-model": {
    "states": ["s1", "s2", "s3", "s4", "s5", "s6", "s7", "s8", "s9", "s10"],
    "transitions": ["s1,s2", "s2,s3", "s3,s4", "s4,s3", "s2,s5", "s5,s6", "s6,s7", "s7,s6", "s5,s8", "s8,s10", "s9,s10", "s10,s9", "s9,s8"],
    "atoms": [{"s1": []}, {"s2": ["p"]}, {"s3": ["p", "q"]}, {"s4": ["q"]}, {"s5": ["p"]}, {"s6": ["p", "q"]}, {"s7": ["p"]}, {"s8": ["p", "q"]}, {"s9": ["p", "q"]}, {"s10": ["p", "q"]}
  }
}
```

Select state:

s10

AGq

Verify Formula

Save Model

Validation Results:

Phi - AGq holds for state s10!