

Guide to ASP

Giant manual of doom:

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.475.541&rep=rep1&type=pdf>

<http://jsfiddle.net/rndmcnll/L8J6f/>

Kinds of information in ASP rules:

facts:

```
character(laura).
isFemale(laura).
isKing(laura).
isMarriedTo(bob, laura).
```

notes: must end in ‘.’

entities must be lowercase or camel case “laura”, “lauraSmith”

These are often created via some JS code

extrapolations

a way to create new facts

```
married(A, B) :- married(B, A).
loveTriangle(A, B, C) :- loves(A, B), loves(B, C), A != C.
hates(A, C) :- loveTriangle(A, _, C).
hasMotiveForMurder(A, B) :- hates(A, B).
```

Variables must be uppercase or “_” (to ignore). Watch out for two variables being set to the same value, or having two directions (if that’s not what you want) Add A!=B or A<B to restrict duplicates or bidirectionality

selection rules

```
// Pick between 4 and 15 actors, from the group of things that appear in person(A) facts.
4 { actor(A) :person(A) } 15.
```

```
// For EACH entity that is both male and an actor, create between 0 and 1 love facts.
{ loves(A, B) :female(B) } 1 :- male(A), actor(A).
```

```
// ???
```

```
1 { parent(X,Y, 0,-1);
  parent(X,Y, 1, 0);
  parent(X,Y,-1, 0);
  parent(X,Y, 0, 1) } 1 :-
  dim(X), dim(Y), (X,Y) != (1,1).
```

requirement rules

Remove any world where this is true

// remove any world where some A and some B have an incest relationship

`:- incest(A, B).`

// remove any world in which there is NOT between 1 and 3 pairs of people in requited love.

`:- not 1 { requitedLove(A, B) : person(A) :person(B) } 3.`

// remove any world where something is locked but not a segment

`:- locked(X1,Y1,X2,Y2), not segment(X1,Y1,X2,Y2).`

To try:

All of the Lannisters are at Kings Landing

All of the Starks are at Winterfell

Characters can move somewhere, but only if there's a road.

Characters with a mutual hatred of someone can scheme with each other ("areScheming")

..but only if at the same place

A character can scheme to use someone's weakness against them

A character can becomeKing, but only if at kingsLanding

What makes a character happy?

Make some number of characters fall in love (or something else, "hasPuppy"), such that everyone is either happy or dead.

Add new handlers on characters.js ("setProp")

Add new characters or starting properties with data.js

Add or remove rules in thronesWorld.js