

Management Decision Models

BLOCKS WORLD, DECISION-MAKING

Example problem:

[a]			[a]
[b]	[c]	==>	[b]
-----			[c]

Term representation:

(a On b)	(a On b)
(b On T)	(b On c)
(c On T)	(c On T)

Strategy I: direct transformation of non matching relations

Move(b Onto c) fails

Strategy II: find out what can be Moved (find all true preconditions)

Move(a Onto x), Move(c Onto x)

have to select one, many possible places indicated by "x", search

Strategy III: Level maps terms onto normalized terms

Level(term):

pre: (x On y) and (y != T)
act: Move(x Onto T)
until: all x: (x On T)

Management Decision Models

Strategy IV: Build from Level maps normalized terms onto term template

Construct(new From old):

```
pre:    level(old)
act:    when (x On y) in new, Move(x Onto y)
until:  new
```

Strategy IVa: Order introduces new concept, an Ordered Term

Order(term):

```
when (x On y) and (y On z),
    Move(y On z) then Move(x On y)
```

Note: apply Move to (y On z) first

Strategy V: Stack, is an ordered term

Subdivide entire term into ordered stacks

```
[(a On b) (b On T)] [(c On T)]
```

Now, Move applies only to first item in each stack