

Help on module action_model:

NAME

action_model - Define categories of Action and their consequences in the World.

FILE

c:\nickmontfort-curvedship-814de6e\action_model.py

CLASSES

__builtin__.object

Action

Behave

Configure

Modify

Sense

class Action(__builtin__.object)

| Abstract base class for things done by an agent in the world.

| Methods defined here:

| __init__(self, verb, agent, category, **keywords)

| __str__(self)

| Describes the action in a one-line string.

| change(self, world, making_change=True)

| Alter the world. Only Modify and Configure actions do it.

| check_allowed(self, condition, world)

| Does the "allowed" rule of the parent let the Item become a child?

| check_preconditions(self, world)

| Determine if any of the preconditions fail, and why.

| check_refusal(self, world)

| If the agent refuses to do the action, update the reason.

| do(self, world)

| Perform the action, updating the world.

| match_string(self, event_test)

| Does the string indicate this action?

| moved_somewhere_different(self, actor)

| Tells whether this action caused the actor to move elsewhere.

| show(self)

| Return verb, agent, cause, preconditions, type, any postcondition.

```
| undo(self, world)
|     Make the world as if this action had never happened.
|
| -----
| Data descriptors defined here:
|
| __dict__
|     dictionary for instance variables (if defined)
|
| __weakref__
|     list of weak references to the object (if defined)
|
| category
|     Returns the category (behave, configure, etc.) as a lowercase string.
|
| end
|     Return the action's end time. All actions have duration 1 now.
```

```
class Behave(Action)
| An action that itself changes nothing, e.g., jumping up and down.
|
| Method resolution order:
|     Behave
|     Action
|     __builtin__.object
|
| Methods defined here:
|
| __init__(self, verb, agent, **keywords)
|
| entails(self, world)
|     Entailed Actions for Behave:
|
|     Configure the actor to a new Room after leaving, remove food after
|     eating.
|
| pre(self, _)
|     Preconditions for Behave:
|
|     The agent must be able to access all objects. If trying to consume
|     food or drink, it must be consumable. If trying to leave, an exit
|     must exist.
|
| -----
| Methods inherited from Action:
|
| __str__(self)
|     Describes the action in a one-line string.
|
| change(self, world, making_change=True)
```

Alter the world. Only Modify and Configure actions do it.

check_allowed(self, condition, world)

Does the "allowed" rule of the parent let the Item become a child?

check_preconditions(self, world)

Determine if any of the preconditions fail, and why.

check_refusal(self, world)

If the agent refuses to do the action, update the reason.

do(self, world)

Perform the action, updating the world.

match_string(self, event_test)

Does the string indicate this action?

moved_somewhere_different(self, actor)

Tells whether this action caused the actor to move elsewhere.

show(self)

Return verb, agent, cause, preconditions, type, any postcondition.

undo(self, world)

Make the world as if this action had never happened.

Data descriptors inherited from Action:

__dict__

dictionary for instance variables (if defined)

__weakref__

list of weak references to the object (if defined)

category

Returns the category (behave, configure, etc.) as a lowercase string.

end

Return the action's end time. All actions have duration 1 now.

class Configure(Action)

An action that repositions an item in the item tree.

Method resolution order:

Configure

Action

__builtin__.object

Methods defined here:

`__init__(self, verb, agent, **keywords)`

`change(self, world, making_change=True)`

Put the item in the new (or old) arrangement in the tree.

`entails(self, world)`

Entailed Actions for Configure:

Passing through Doors into new Rooms, looking at new Rooms, replenishing a source with a Substance and evaporating/dissipating a Substance. Also, looking at newly-lit Items.

`post(self)`

Postcondition: Item is in a new arrangement.

`pre(self, world)`

Preconditions for Configure:

Only @cosmos may Configure Items that are part_of others, Doors, or SharedThings. Configure requires a new link and parent. To be configured from "in" a container, the container (if it opens) must be open. To go "in" or "through" something, that Item must (if it opens) be open. Be able to access the Item and (in most cases) the new parent. The Item must be allowed in the new parent.

`set_old_if_unset(self, world)`

Set old_link and old_parent if they have been left off.

Methods inherited from Action:

`__str__(self)`

Describes the action in a one-line string.

`check_allowed(self, condition, world)`

Does the "allowed" rule of the parent let the Item become a child?

`check_preconditions(self, world)`

Determine if any of the preconditions fail, and why.

`check_refusal(self, world)`

If the agent refuses to do the action, update the reason.

`do(self, world)`

Perform the action, updating the world.

`match_string(self, event_test)`

Does the string indicate this action?

```
| moved_somewhere_different(self, actor)
|     Tells whether this action caused the actor to move elsewhere.
|
| show(self)
|     Return verb, agent, cause, preconditions, type, any postcondition.
|
| undo(self, world)
|     Make the world as if this action had never happened.
|
| -----
| Data descriptors inherited from Action:
|
| __dict__
|     dictionary for instance variables (if defined)
|
| __weakref__
|     list of weak references to the object (if defined)
|
| category
|     Returns the category (behave, configure, etc.) as a lowercase string.
|
| end
|     Return the action's end time. All actions have duration 1 now.
```

```
class Modify(Action)
| An action that changes some Item's state, the value of a feature.
|
| Method resolution order:
|     Modify
|     Action
|     __builtin__.object
|
| Methods defined here:
|
| __init__(self, verb, agent, **keywords)
|
| change(self, world, making_change=True)
|     Alter the state of the Item to the new (or old) one.
|
| entails(self, _)
|     Entailed Actions for Modify: Just looking at newly-lit Items.
|
| post(self)
|     Postcondition: Item's feature has a new value.
|
| pre(self, world)
|     Preconditions for Modify:
|
|     The Item must have the feature being modified. Modify requires a
|     different value. The old value, if specified, must match. The item
```

must be accessible by the agent. If opening an Item, it must (if lockable) be unlocked. If burning an Item, fire must be accessible. If unlocking an Item, the key must be accessible.

Methods inherited from Action:

`__str__(self)`

Describes the action in a one-line string.

`check_allowed(self, condition, world)`

Does the "allowed" rule of the parent let the Item become a child?

`check_preconditions(self, world)`

Determine if any of the preconditions fail, and why.

`check_refusal(self, world)`

If the agent refuses to do the action, update the reason.

`do(self, world)`

Perform the action, updating the world.

`match_string(self, event_test)`

Does the string indicate this action?

`moved_somewhere_different(self, actor)`

Tells whether this action caused the actor to move elsewhere.

`show(self)`

Return verb, agent, cause, preconditions, type, any postcondition.

`undo(self, world)`

Make the world as if this action had never happened.

Data descriptors inherited from Action:

`__dict__`

dictionary for instance variables (if defined)

`__weakref__`

list of weak references to the object (if defined)

`category`

Returns the category (behave, configure, etc.) as a lowercase string.

`end`

Return the action's end time. All actions have duration 1 now.

`class Sense(Action)`

A perception that can update a concept.

Method resolution order:

Sense

Action

__builtin__.object

Methods defined here:

__init__(self, verb, agent, **keywords)

pre(self, _)

Preconditions for Sense:

The agent must be able to see the direct object if looking, access it if touching.

Methods inherited from Action:

__str__(self)

Describes the action in a one-line string.

change(self, world, making_change=True)

Alter the world. Only Modify and Configure actions do it.

check_allowed(self, condition, world)

Does the "allowed" rule of the parent let the Item become a child?

check_preconditions(self, world)

Determine if any of the preconditions fail, and why.

check_refusal(self, world)

If the agent refuses to do the action, update the reason.

do(self, world)

Perform the action, updating the world.

match_string(self, event_test)

Does the string indicate this action?

moved_somewhere_different(self, actor)

Tells whether this action caused the actor to move elsewhere.

show(self)

Return verb, agent, cause, preconditions, type, any postcondition.

undo(self, world)

Make the world as if this action had never happened.

```
| -----  
| Data descriptors inherited from Action:  
|  
|   __dict__  
|       dictionary for instance variables (if defined)  
|  
|   __weakref__  
|       list of weak references to the object (if defined)  
|  
|   category  
|       Returns the category (behave, configure, etc.) as a lowercase string.  
|  
|   end  
|       Return the action's end time. All actions have duration 1 now.
```

FUNCTIONS

```
generator(num)  
    Provides unique, increasing integers.
```

DATA

```
ACTION_ID = <generator object generator>  
__author__ = 'Nick Montfort'  
__copyright__ = 'Copyright 2011 Nick Montfort'  
__license__ = 'ISC'  
__status__ = 'Development'  
__version__ = '0.5.0.0'
```

VERSION

```
0.5.0.0
```

AUTHOR

```
Nick Montfort
```