

Included Python Functions

changeContents(container,containeer)

Adds the metaobject *containeer* to the contents of metaobject *container*, if *containeer* is not in the contents of *container*. Removes *containeer* from *container* otherwise. Returns **None** if either object is not found in the database.

checkCapability(Agent,Action Id)

Checks to see if an agent is capable of performing a given action (generally the action that is calling the function). This uses the database table *ob_capable*, and compares action ids up the action tree. If neither the agent or action are set, returns None.

checkObjectCapability(Object,Action Id,position)

Checks to see if an object can be used as an argument for an action. This uses *obj_afford* in the database. The function traverses up the Action Tree, comparing the object to the affordance in the database table. At each action search, the affordance function searches up the object tree. If neither the object or action exist, returns None.

contain(container,containeer)

Returns True if the metaobject *containeer* is in the contents of metaobject *container*, and False if it is not. If one or neither object exists, returns None.

dist(object1,object2)

Returns the distance between two objects in the database. If an item does not have a position within the database, a position of $< 0, 0, 0 >$ is assumed. Returns None if one or both objects do not exist in the database.

finishedAction(action id (self.id))

Returns true if an action's finished flag is set to true, False otherwise.

getBoundingRadius(object)

Uses the first bounding point's x direction as a radius, and returns the radius as a floating point value. If no object is set, returns None.

getElapsedTime()

Returns the elapsed PAR-time as the number of seconds that have elapsed in the current simulation.

getLocation(object)

Returns the location of MetaObject *object*. If the object does not have a location, or there is a failure, returns -1.

getObjectName(object)

Returns the name of MetaObject *object*. On failure, returns None.

getPosition(object)

Returns the position of MetaObject *object* as a tuple (x,y,z). This can be used by either the object or the agent. Default coordinates are (0,0,0). On failure, returns None.

getProperty(object,prop)

Returns the value MetaObject *object* has for a given property *prop*. This returns either an integer value (if the property is an integer property), or a string otherwise. On any failure, this function returns the empty string.

isSet(object)

Returns true if the argument *object* has a corresponding MetaObject, and False otherwise.

isType(object,type)

Returns true if the argument *object* has a corresponding is of a type *type*. Type is a string representing a type of object that can be found in the object hierarchy located in the database. An example of this is to determine if a given MetaObject is an agent. Returns False if object is not of type *type*, or if there is a failure.

SetFailure(iPAR id, failure code)

Creates and sets a failure code for an iPAR, using the *iPAR's id*. This can be used to process the iPAR further depending on the error code.

SetPosition(object,(x,y,z))

Sets the position of MetaObject *object* using the tuple (x,y,z). Returns None on failure.

setProperty(object,prop_type,prop_name)

Sets the name *prop_name* of type *prop_type* to MetaObject *object*. Returns True if the property is set, and False otherwise. This function should be used for properties that are strings.

setProperty(object,prop_type,prop_value)

Sets the value *prop_value* of type *prop_type* to MetaObject *object*. Returns True if the property is set, and False otherwise. This function should be used for properties that are integers.