Appendix A The full specification for the wolf

Name	Eat-object
Action	[implementation for Eat-object]
Argument Type	object
Preconditions	carrying-object <object-arg>
Preconditions-ordered?	No
Add-list	hunger-satisfied (object-from-blank <object-arg>) hands-free (carried-object-from-blank <object-arg>)
Delete-list	carrying-object <object-arg>
Relevant-when	object-edible <object-arg>

Table 12: The behavior module for *Eat-object*

Name	Pickup-object
Action	[implementation for Pickup-object]
Argument Type	object
Preconditions	Im-at-location (location-of <object-arg>) hands-free (blank-from-object <object-arg>)
Preconditions-ordered?	Yes
Add-list	carrying-object <object-arg>
Delete-list	hands-free (interesting-objects-from-blank <object-arg>)
Relevant-when	

Table 13:* The behavior module for *Pickup-object

Name	Explode-object
Action	[implementation for Explode-object]
Argument Type	object
Preconditions	TNT-at-location (location-of <object-arg>) Im-at-location (detonator-location-from-object <object-arg>)
Preconditions-ordered?	Yes
Add-list	object-doesnt-exist <object-arg>
Delete-list	
Relevant-when	object-destroyable <object-arg>

Table 14: The behavior module for *Explode-object*

Name	Walk-to-location
Action	[implementation for Walk-to-location]
Argument Type	location
Preconditions	object-doesnt-exist (object-blocking-path-to <location-arg>) Im-at-location (locations-with-a-free-path-to <location-arg>) Im-on-ground (blank-from-location <location-arg>)
Preconditions-ordered?	No
Add-list	Im-at-location <location-arg>
Delete-list	
Relevant-when	location-on-ground <location-arg>

Table 15: The behavior module for *Walk-to-location*

Name	Pogo-to-location
Action	[implementation for Pogo-to-location]
Argument Type	location
Preconditions	object-doesnt-exist (object-blocking-path-to <location-arg>) carrying-object (pogo-stick-from-location <location-arg>) Im-on-ground-or-pogoing (blank-from-location <location-arg>)
Preconditions-ordered?	Yes
Add-list	Im-at-location <location-arg>
Delete-list	
Relevant-when	location-on-or-above-ground <location-arg>

Table 16: The behavior module for *Pogo-to-location*

Name	Climb-down-chimney-to-location
Action	[implementation for Climb-down-chimney-to-location]
Argument Type	location
Preconditions	Im-at-location (location-of-chimney-leading-to <location-arg>)
Preconditions-ordered?	No
Add-list	Im-at-location <location-arg>
Delete-list	
Relevant-when	location-at-bottom-of-a-chimney <location-arg>

Table 17: The behavior module for *Climb-down-chimney-to-location*

Name	Drop-object
Action	[implementation for Drop-object]
Argument Type	object
Preconditions	carrying-object <object-arg>
Preconditions-ordered?	No
Add-list	hands-free (carried-object-from-blank <blank-arg>)
Delete-list	carrying-object <object-arg>
Relevant-when	

Table 18: The behavior module for *Drop-object*

Name	Blow-down-object
Action	[implementation for Blow-down-object]
Argument Type	object
Preconditions	Im-on-ground (blank-from-object <object-arg>) Im-at-location (location-of <object-arg>)
Preconditions-ordered?	No
Add-list	object-doesnt-exist <object-arg>
Delete-list	
Relevant-when	object-is-destroyable <object-arg>

Table 19: The behavior module for *Blow-down-object*

Name	Pack-TNT-at-location
Action	[implementation for Pack-TNT-at-location]
Argument Type	location
Preconditions	carrying-object (TNT-from-location <location-arg>) Im-at-location <location-arg>
Preconditions-ordered?	Yes
Add-list	TNT-at-location
Delete-list	
Relevant-when	

Table 20: The behavior module for *Pack-TNT-at-location*

Name	Explode-object
Action	[implementation for Explode-object]
Argument Type	object
Preconditions	TNT-at-location (location-of <object-arg>) Im-at-location (detonator-location-from-object <object-arg>)
Preconditions-ordered?	Yes
Add-list	object-doesnt-exist <object-arg>
Delete-list	
Relevant-when	object-destroyable <object-arg>

Table 21: The behavior module for *Explode-object*

From	To	Filter Series
Eat Object	Pickup Object	when object not in hand Object ⇒ Object
Eat Object	Eat Object	when object is in hand Object ⇒ Object conflictor-filter when object is edible
Eat Object	Drop Object	when object in hand Object ⇒ Object conflictor filter
Drop Object	Pickup Object	when object is in hand Object ⇒ Object
Drop Object	Eat Object	when object is in hand Object ⇒ Object conflictor-filter when object is edible
Drop Object	Drop Object	when object is in hand Object ⇒ Object conflictor-filter
Pickup Object	Pogo to Location	when not at location of object Object ⇒ Location of object when location is on or above ground
Pickup Object	Walk to Location	when not at location of object Object ⇒ Location of object when location is on ground
Pickup Object	Climb Chimney to Location	when not at location of object Object ⇒ Location of object when location is at base of chimney
Pickup Object	Eat Object	when hands are full when at location of object Object ⇒ Blank Object ⇒ Carried-object when object is edible
Pickup Object	Drop Object	when hands are full when at location of object Object ⇒ Blank Object ⇒ Carried-object
Pickup Object	Pickup Object	when hands are free Object ⇒ Blank Object ⇒ Interesting-objects conflictor filter
Pogo to Location	Blow Down Object	when there is a blocker to location Location ⇒ Object-blocking-path when object is destroyable

Table 22: Links of the full wolf, with prominent filters and transformations

From	To	Filter Series
Pogo to Location	Explode Object	when there is a blocker to location Location ⇒ Object-blocking-path when object is destroyable
Pogo to Location	Pickup Object	when no blocker to location when not carrying pogo-stick Location ⇒ pogo-stick
Pogo to Location	Drop Object	when no blocker to location when carrying pogo-stick Location ⇒ pogo-stick conflictor-filter
Pogo to Location	Eat Object	when no blocker to location when carrying pogo-stick Location ⇒ pogo-stick conflictor-filter when pogo-stick is edible
Walk to Location	Walk to Location	when no free path to Location Location ⇒ Location-with-free-path when free-path location on ground
Walk to Location	Pogo to Location	when no free path to Location Location ⇒ Location-with-free-path when free-path location on or above ground
Walk to Location	Climb Chimney to Location	when no free path to Location Location ⇒ Location-with-free-path when free-path location at base of chimney
Walk to Location	Blow Down Object	when there is a blocker to location Location ⇒ Object-blocking-path when object is destroyable
Walk to Location	Explode Object	when there is a blocker to location Location ⇒ Object-blocking-path when object is destroyable
Climb Chimney to Location	Pogo to Location	when not at chimney-top Location ⇒ Location-of-chimney-top when chimney-top on or above ground
Climb Chimney to Location	Walk to Location	when not at chimney-top Location ⇒ Location-of-chimney-top when chimney-top on ground
Climb Chimney to Location	Climb Chimney to Location	when not at chimney-top Location ⇒ Location-of-chimney-top when chimney-top at base of chimney
Blow Down Object	Pogo to Location	when not at location of object Object ⇒ Location of object when location is on or above ground

Table 22: Links of the full wolf, with prominent filters and transformations

From	To	Filter Series
Blow Down Object	Walk to Location	when not at location of object Object ⇒ Location of object when location is on ground
Blow Down Object	Climb Chimney to Location	when not at location of object Object ⇒ Location of object when location at base of chimney
Explode Object	Pack TNT at Location	when TNT not at location of object Object ⇒ Location of object
Explode Object	Pogo to Location	when TNT is at location of object when I'm not at the detonator Object ⇒ Location of Detonator when location is on or above ground
Explode Object	Walk to Location	when TNT is at location of object when I'm not at the detonator Object ⇒ Location of Detonator when location is on ground
Explode Object	Climb Chimney to Location	when TNT is at location of object when I'm not at the detonator Object ⇒ Location of Detonator when location is at base of chimney
Pack TNT at Location	Pickup Object	when not carrying TNT Location ⇒ TNT
Pack TNT at Location	Pogo to Location	when carrying TNT when not at Location Location ⇒ Location when Location on or above ground
Pack TNT at Location	Walk to Location	when carrying TNT when not at Location Location ⇒ Location when Location on ground
Pack TNT at Location	Climb Chimney to Location	when carrying TNT when not at Location Location ⇒ Location when Location at base of chimney
Pack TNT at Location	Drop Object	when carrying TNT Location ⇒ TNT conflictor-filter
Pack TNT at Location	Eat Object	when carrying TNT Location ⇒ TNT conflictor-filter when TNT is edible

Table 22: Links of the full wolf, with prominent filters and transformations

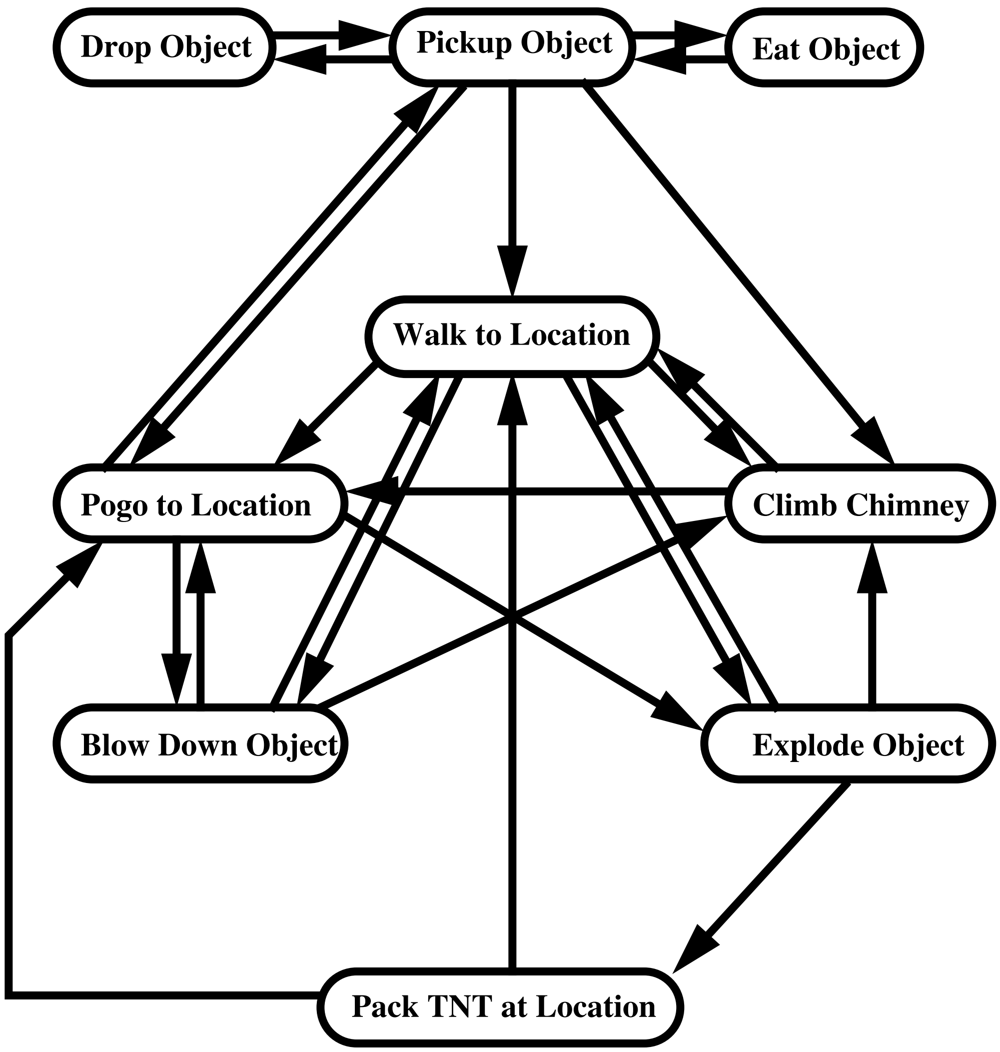

Figure 14: The wolf's predecessor links

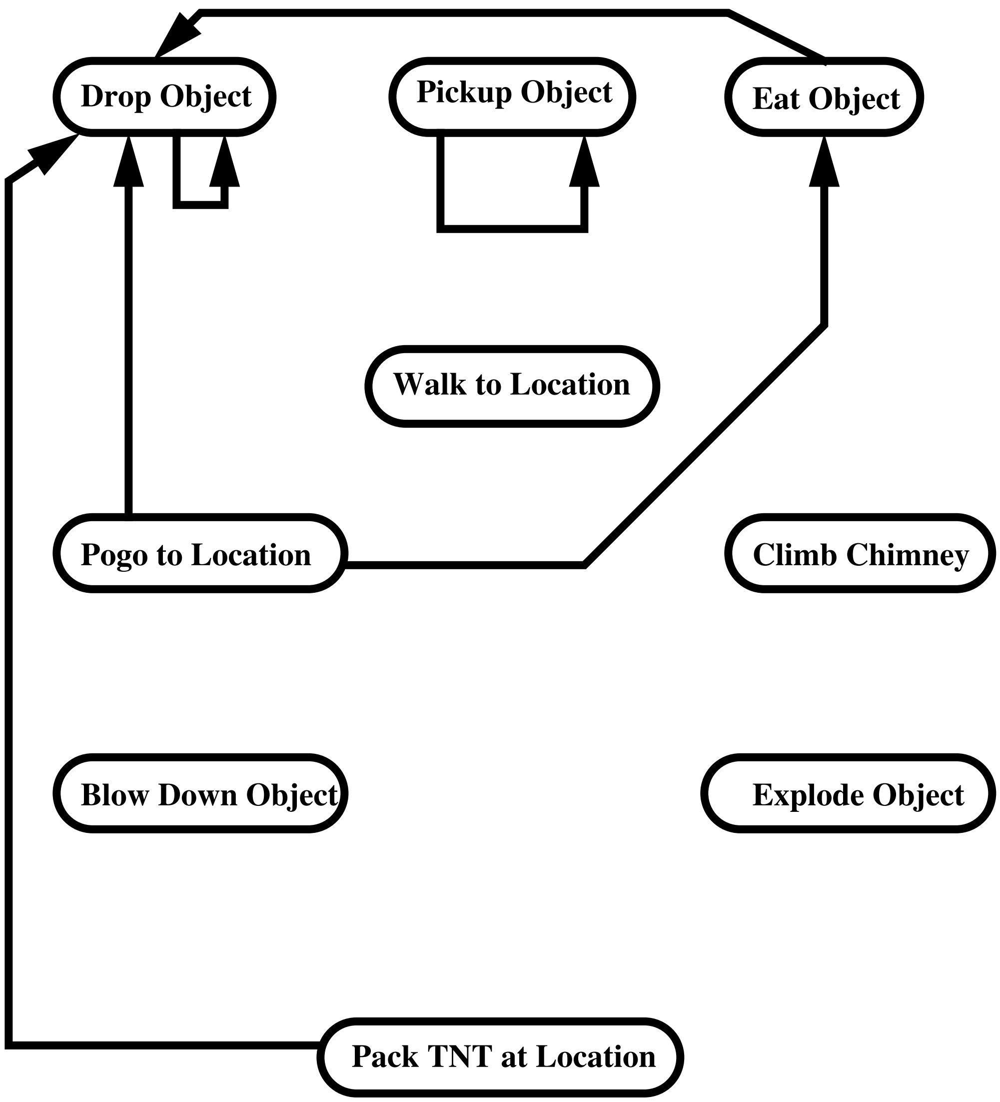

Figure 15: The wolf's conflictor links