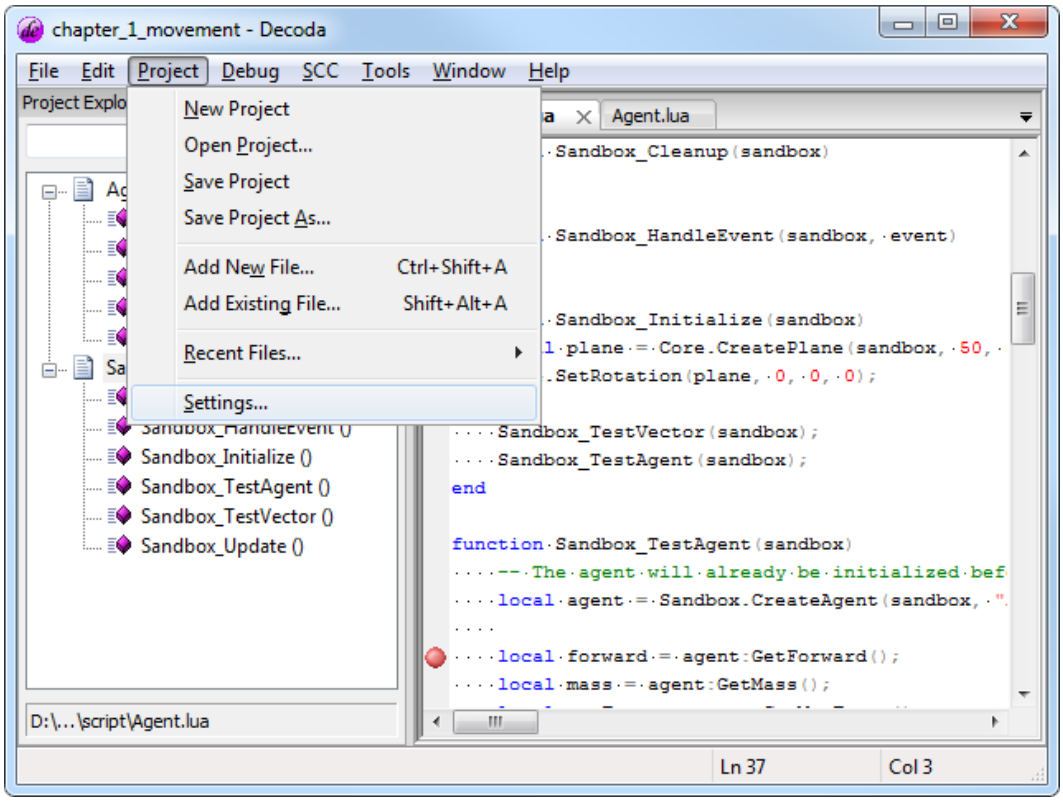
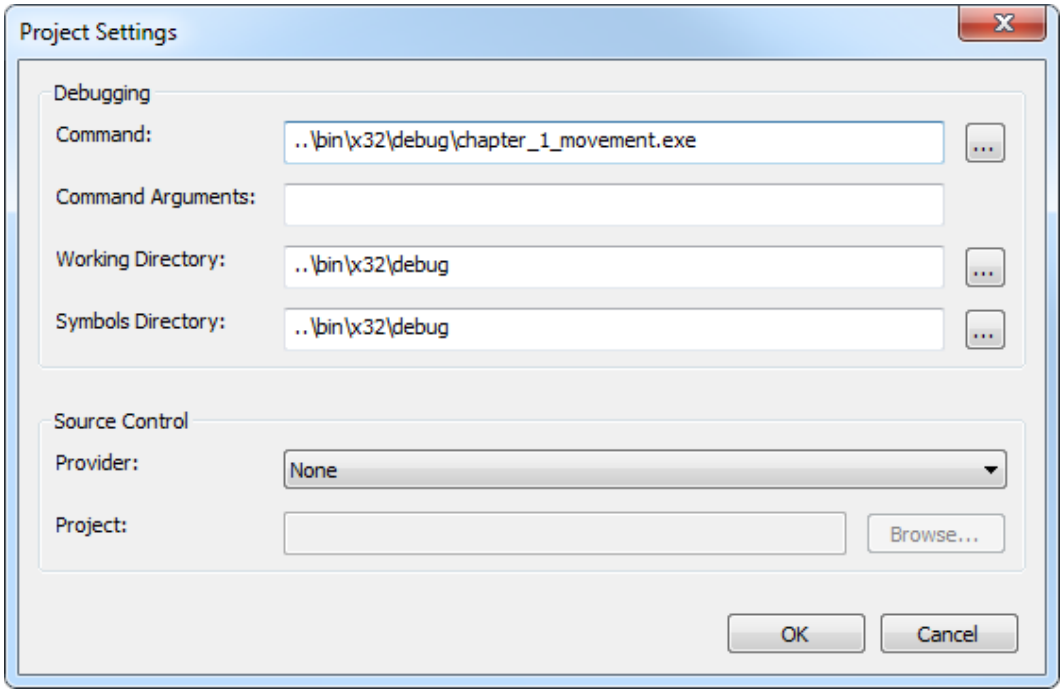
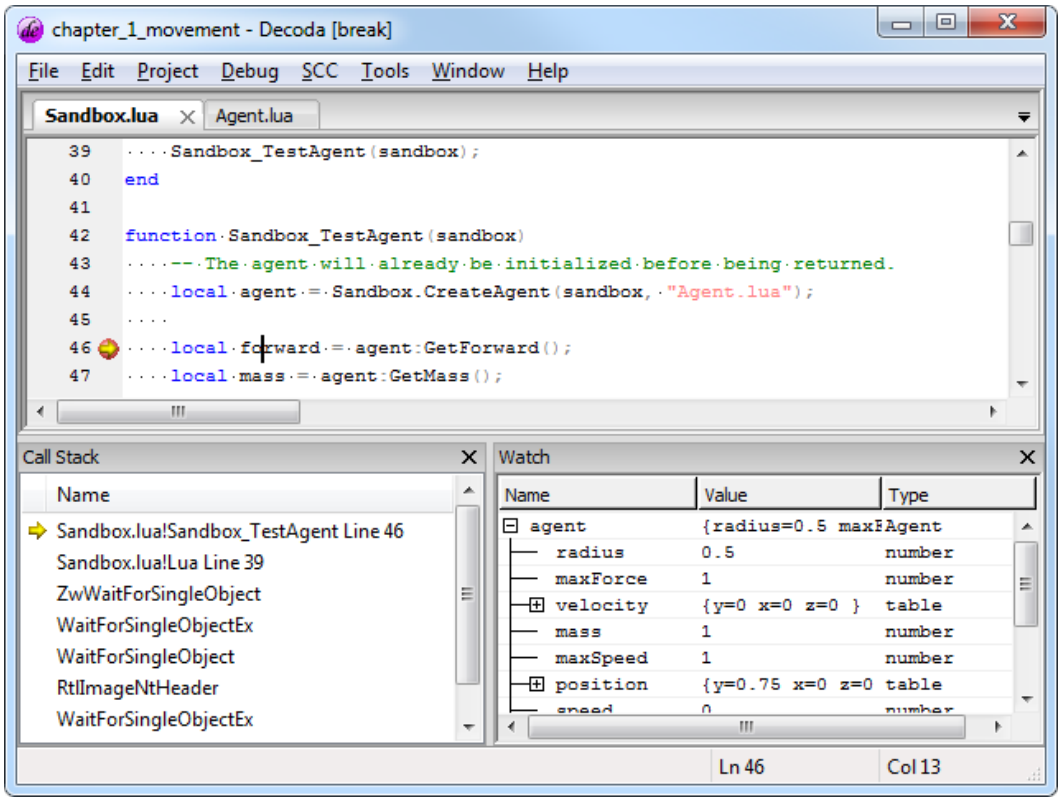
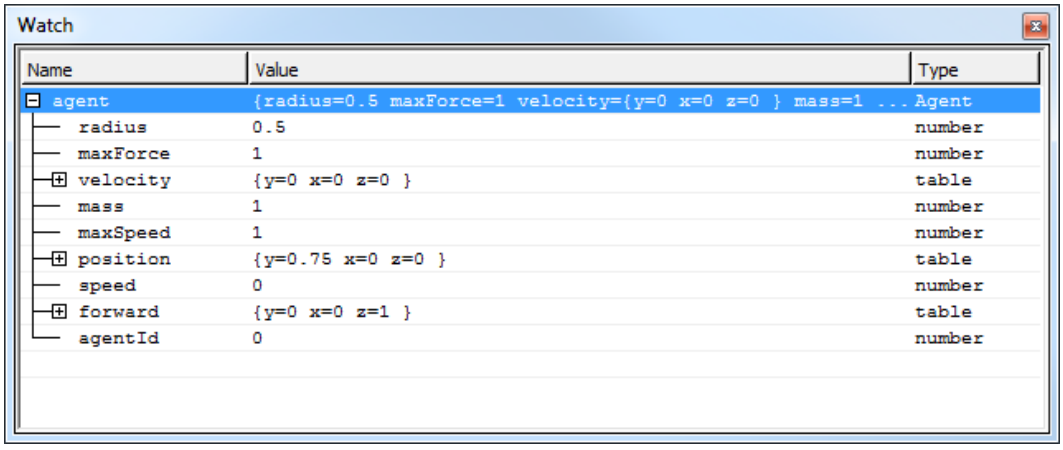
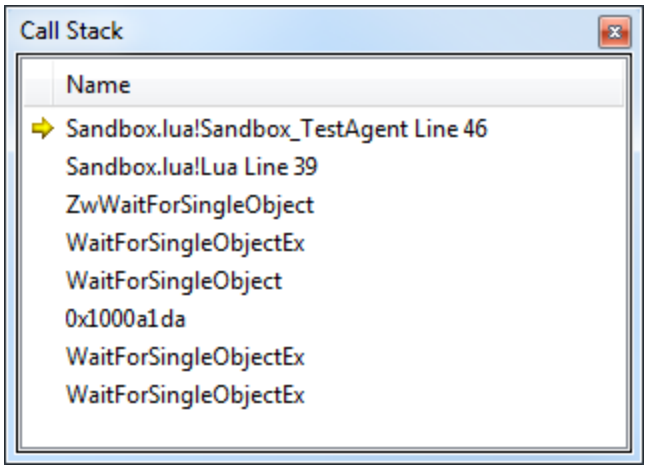
Chapter 1: Getting Started with AI Sandbox

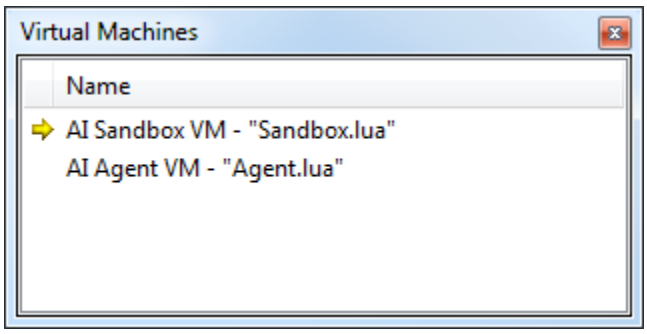


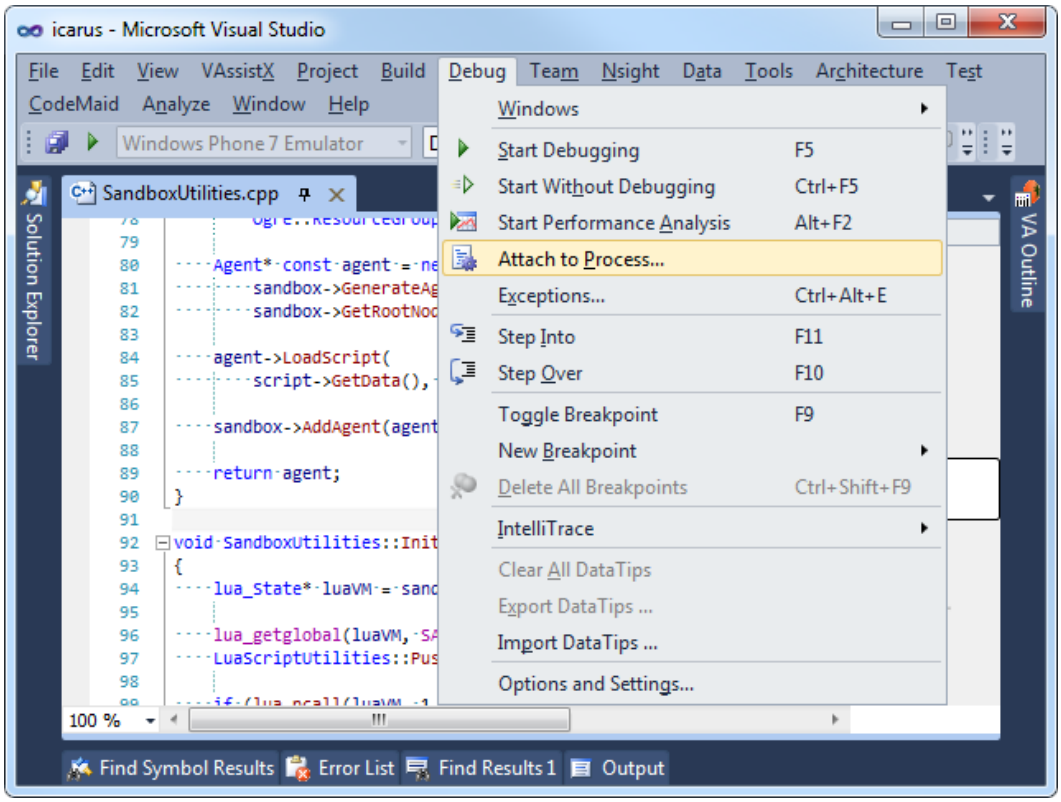


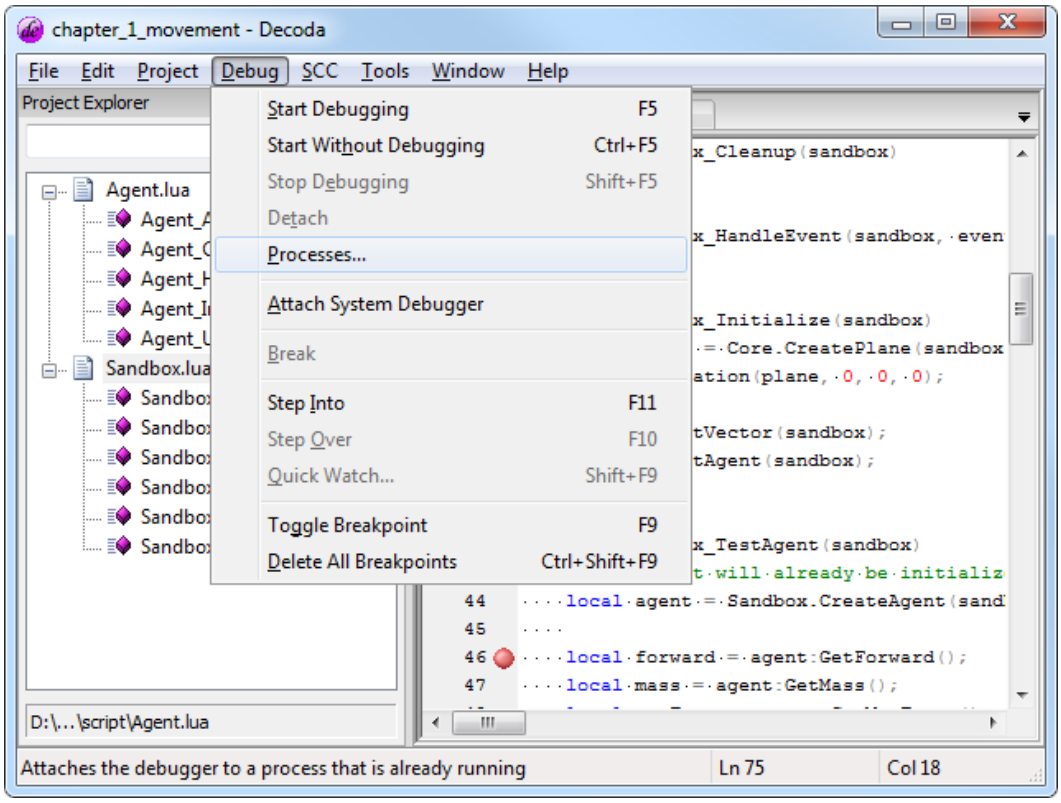

chapter_1_movement - Decoda [break]
File Edit Project Debug SCC Tools Window Help
Sandbox.lua
Agent.lua
39 ····Sandbox_TestAgent(sandbox);
40 end
41
42 function·Sandbox_TestAgent(sandbox)
43 ····--·The·agent·will·already·be·initialized·before·being·returned.
44 ····local·agent·=·Sandbox.CreateAgent(sandbox,·"Agent.lua");
45 ····
46 ····local·forward·=·agent:GetForward();
47 ····local·mass·=·agent:GetMass();
Call Stack
Name
Sandbox.lua!Sandbox_TestAgent Line 46
Sandbox.lua!Lua Line 39
ZwWaitForSingleObject
WaitForSingleObjectEx
WaitForSingleObject
RtlImageNtHeader
WaitForSingleObjectEx
Watch
Name Value Type
agent {radius=0.5 maxF Agent
radius 0.5 number
maxForce 1 number
velocity {y=0 x=0 z=0 } table
mass 1 number
maxSpeed 1 number
position {y=0.75 x=0 z=0 table
Ln 46
Col 13

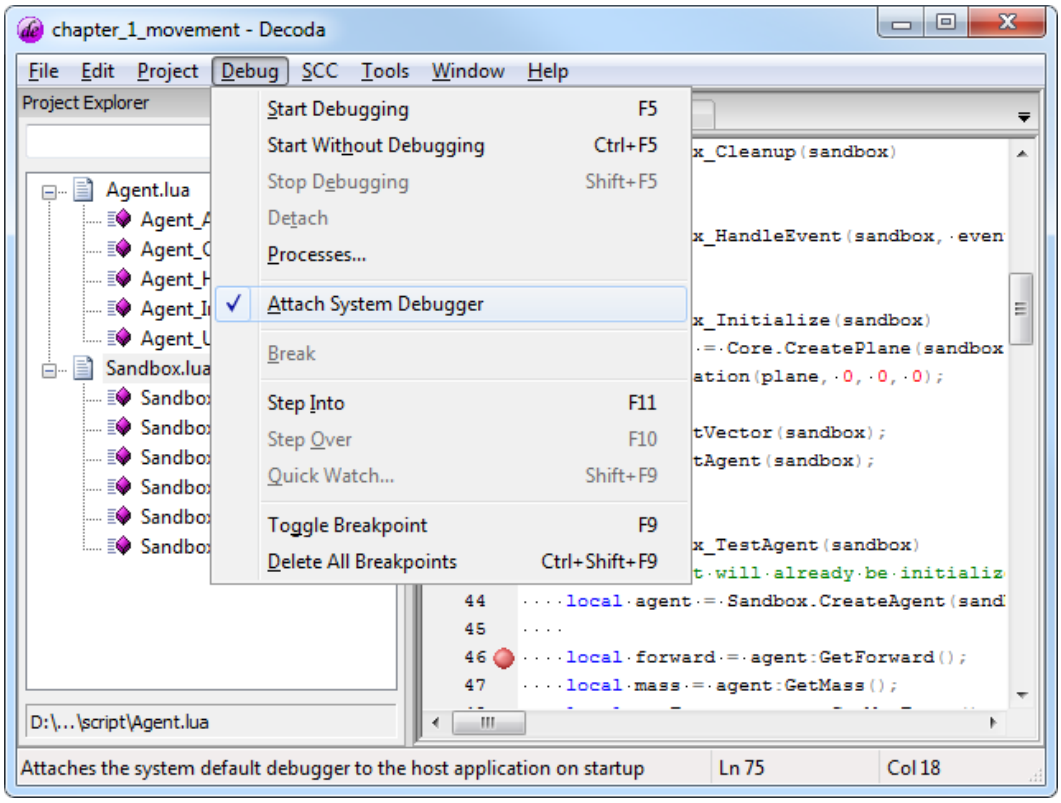

Watch
Name Value Type
agent {radius=0.5 maxForce=1 velocity={y=0 x=0 z=0 } mass=1 ... Agent
radius 0.5 number
maxForce 1 number
velocity {y=0 x=0 z=0 } table
mass 1 number
maxSpeed 1 number
position {y=0.75 x=0 z=0 } table
speed 0 number
forward {y=0 x=0 z=1 } table
agentId 0 number

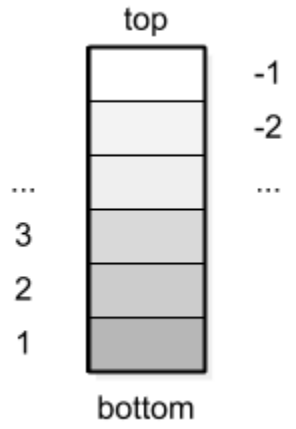

Call Stack
Name
Sandbox.lua!Sandbox_TestAgent Line 46
Sandbox.lua!Lua Line 39
ZwWaitForSingleObject
WaitForSingleObjectEx
WaitForSingleObject
0x1000a1da
WaitForSingleObjectEx
WaitForSingleObjectEx


Virtual Machines
Name
AI Sandbox VM - "Sandbox.lua"
AI Agent VM - "Agent.lua"


icarus - Microsoft Visual Studio
File Edit View VAssistX Project Build Debug Team Nsight Data Tools Architecture Test
CodeMaid Analyze Window Help
Windows Phone 7 Emulator
SandboxUtilities.cpp
Solution Explorer
VA Outline
Windows
Start Debugging F5
Start Without Debugging Ctrl+F5
Start Performance Analysis Alt+F2
Attach to Process...
Exceptions... Ctrl+Alt+E
Step Into F11
Step Over F10
Toggle Breakpoint F9
New Breakpoint
Delete All Breakpoints Ctrl+Shift+F9
IntelliTrace
Clear All DataTips
Export DataTips ...
Import DataTips ...
Options and Settings...
100 %
Find Symbol Results
Error List
Find Results 1
Output


chapter_1_movement - Decoda
File Edit Project Debug SCC Tools Window Help
Project Explorer
Start Debugging F5
Start Without Debugging Ctrl+F5
Stop Debugging Shift+F5
Detach
Processes...
Attach System Debugger
Break
Step Into F11
Step Over F10
Quick Watch... Shift+F9
Toggle Breakpoint F9
Delete All Breakpoints Ctrl+Shift+F9
Agent.lua
Sandbox.lua
D:\...\script\Agent.lua
Attaches the debugger to a process that is already running
Ln 75
Col 18

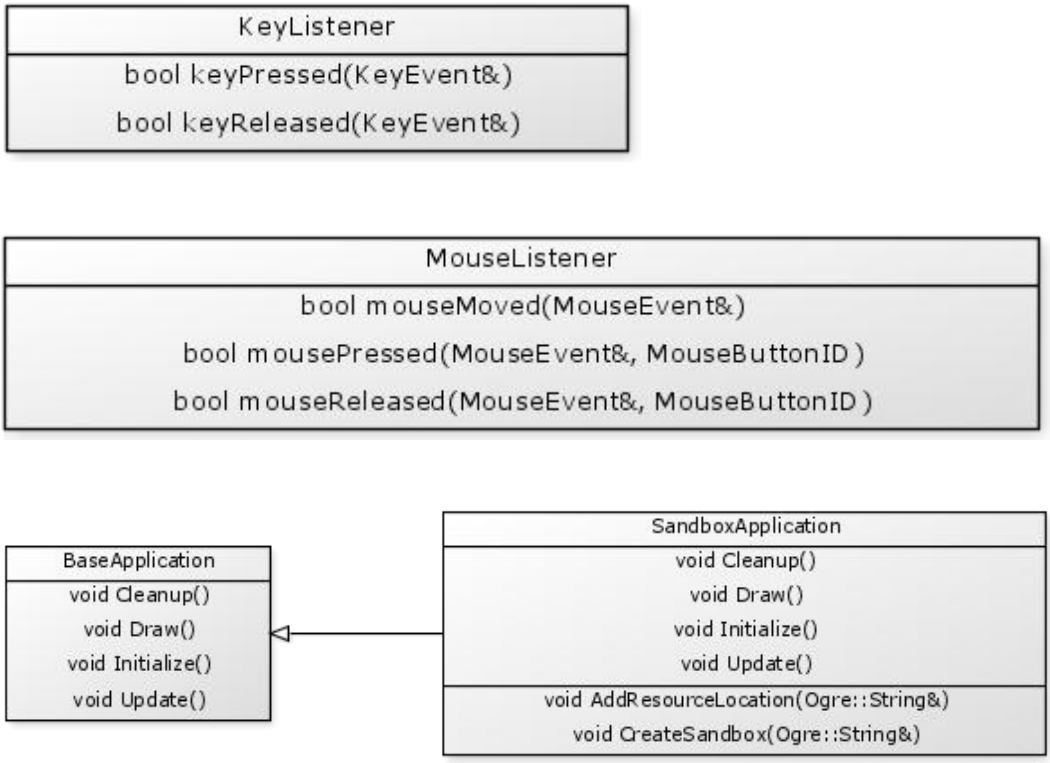

chapter_1_movement - Decoda
File Edit Project Debug SCC Tools Window Help
Project Explorer
Start Debugging F5
Start Without Debugging Ctrl+F5
Stop Debugging Shift+F5
Detach
Processes...
Attach System Debugger
Break
Step Into F11
Step Over F10
Quick Watch... Shift+F9
Toggle Breakpoint F9
Delete All Breakpoints Ctrl+Shift+F9
Agent.lua
Sandbox.lua
D:\...\script\Agent.lua
Attaches the system default debugger to the host application on startup
Ln 75
Col 18



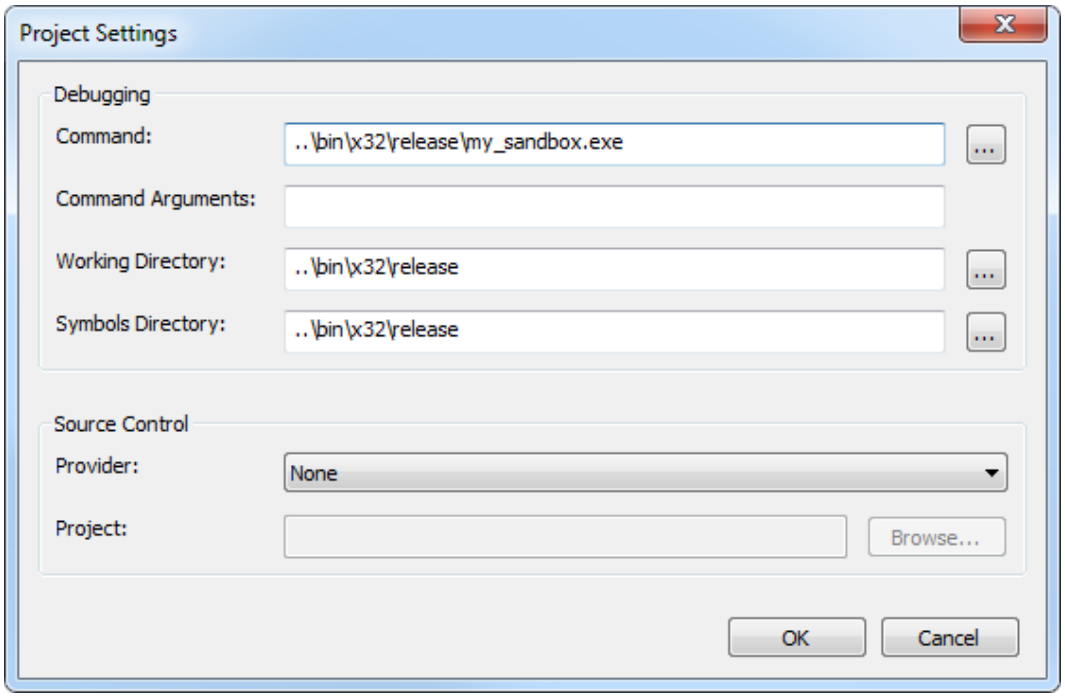
BaseApplication
void Cleanup()
void Draw()
void Initialize()
void Update()

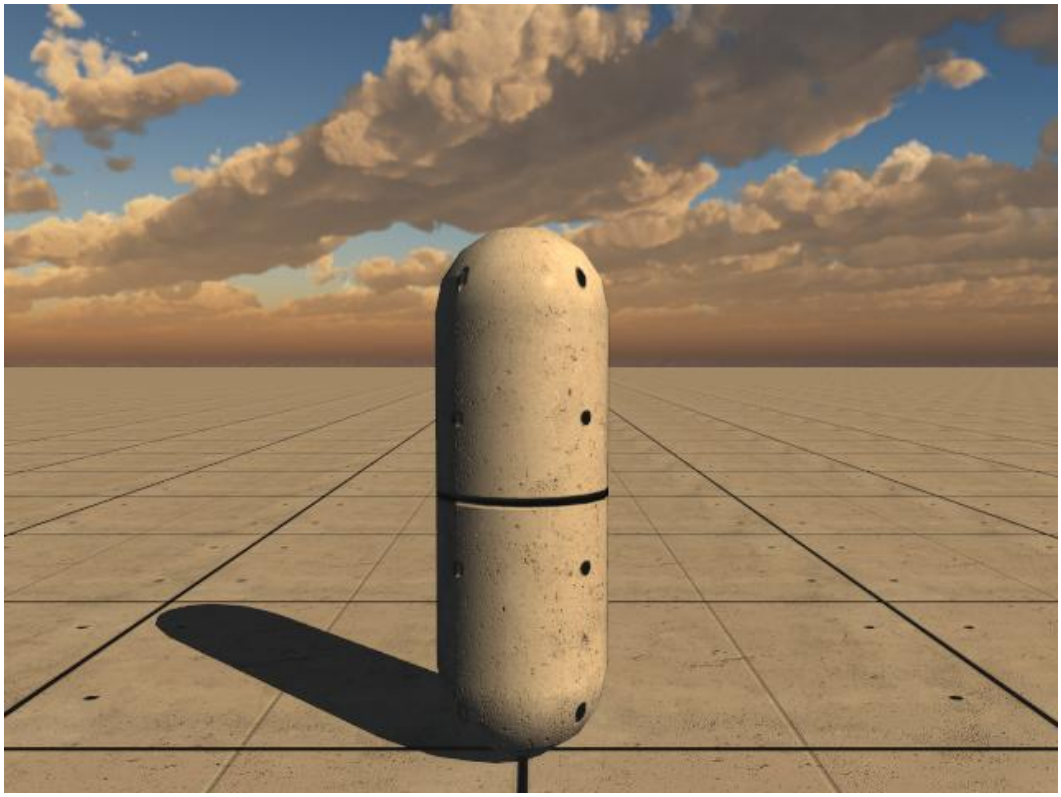
FrameListener
bool frameStarted(FrameEvent&)
bool frameRenderingQueued(FrameEvent&)
bool frameEnded(FrameEvent&)

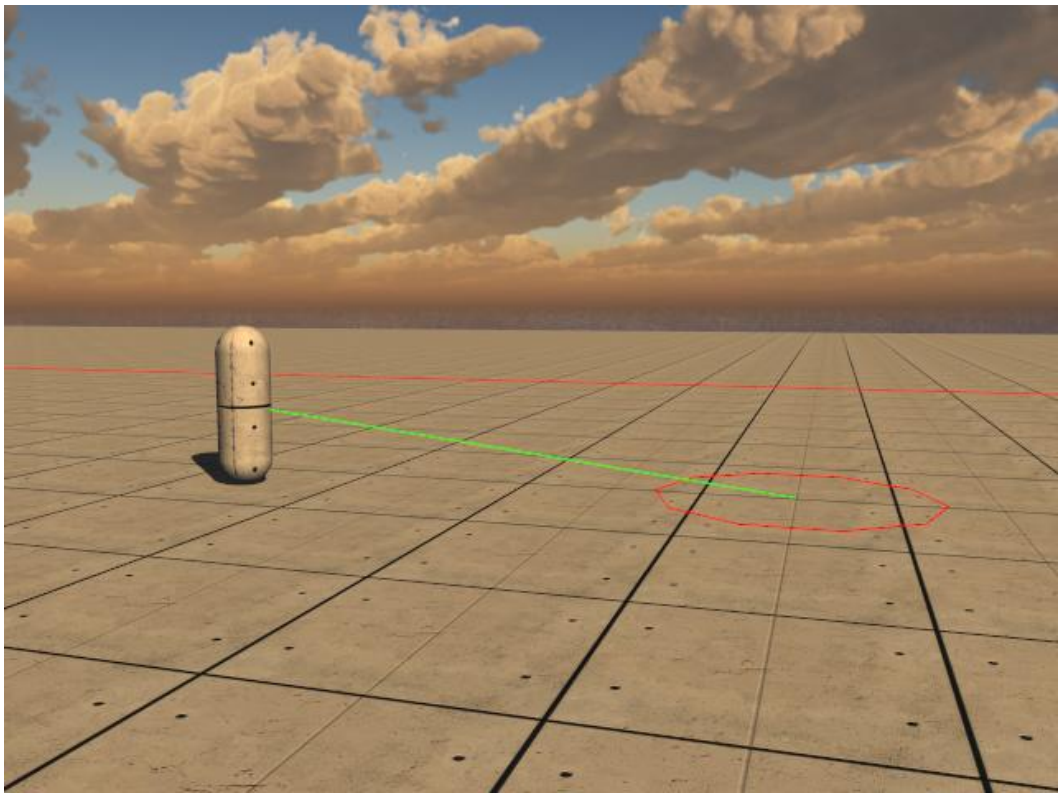
WindowEventListener
void windowMoved(RenderWindow*)
void windowResized(RenderWindow*)
bool windowClosing(RenderWindow*)
void windowClosed(RenderWindow*)
void windowFocusChange(RenderWindow*)

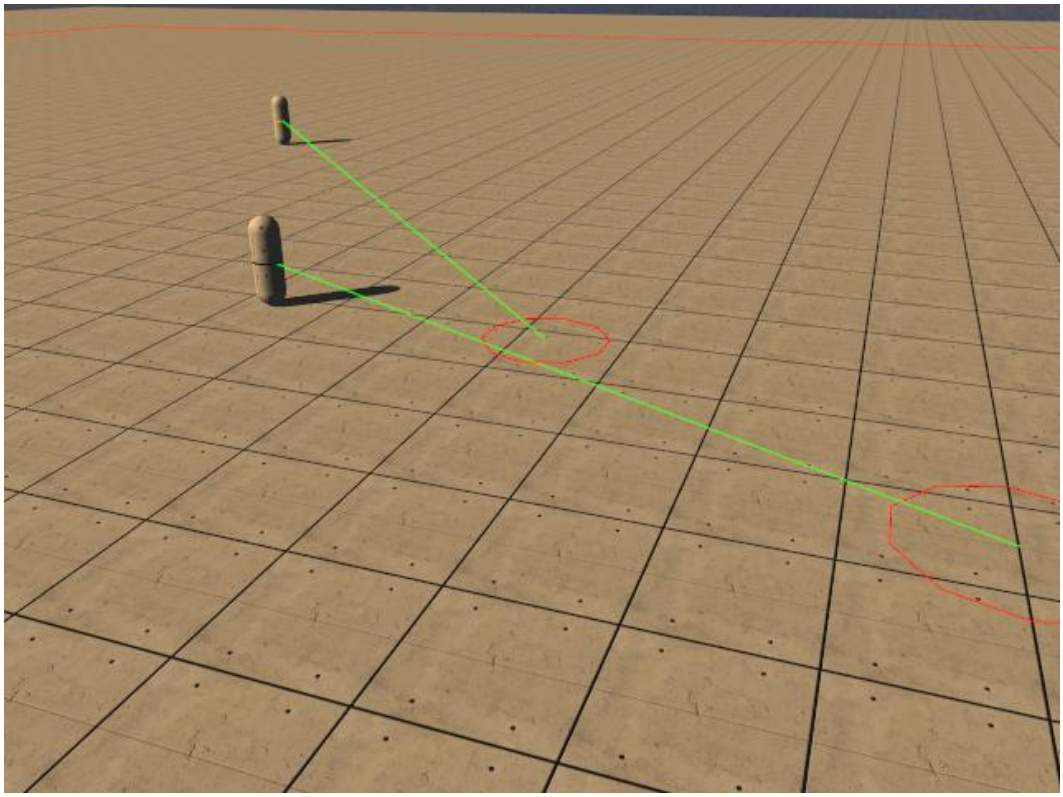

KeyListener
bool keyPressed(KeyEvent&)
bool keyReleased(KeyEvent&)
MouseListener
bool mouseMoved(MouseEvent&)
bool mousePressed(MouseEvent&, MouseButtonID)
bool mouseReleased(MouseEvent&, MouseButtonID)
BaseApplication
void Cleanup()
void Draw()
void Initialize()
void Update()
SandboxApplication
void Cleanup()
void Draw()
void Initialize()
void Update()
void AddResourceLocation(Ogre::String&)
void CreateSandbox(Ogre::String&)
Sandbox
Sandbox(Ogre::SceneNode*)
void AddAgent(Agent*)
void Cleanup()
void Initialize()
void LoadScript(char*, size_t, char*)
void Update(int)
Agent
Agent(unsigned int, Ogre::SceneNode*)
void Cleanup()
void Initialize()
void LoadScript(char*, size_t, char*)
void Update(int)

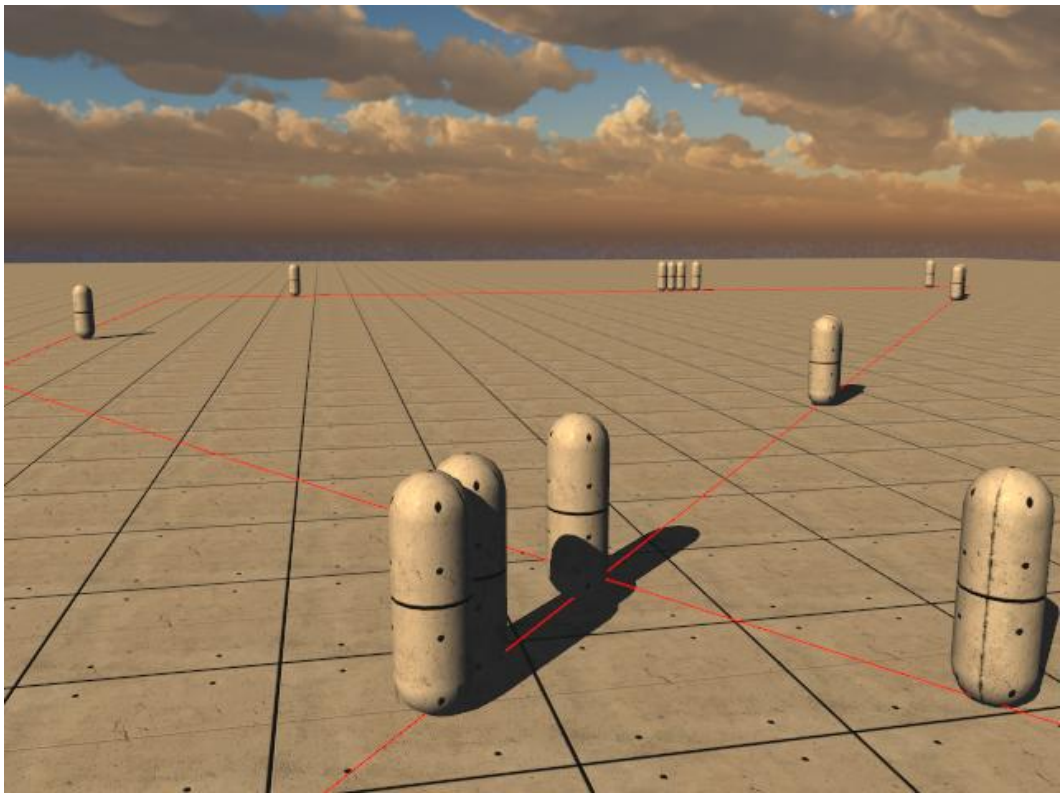
Chapter 2: Creating and Moving Agents

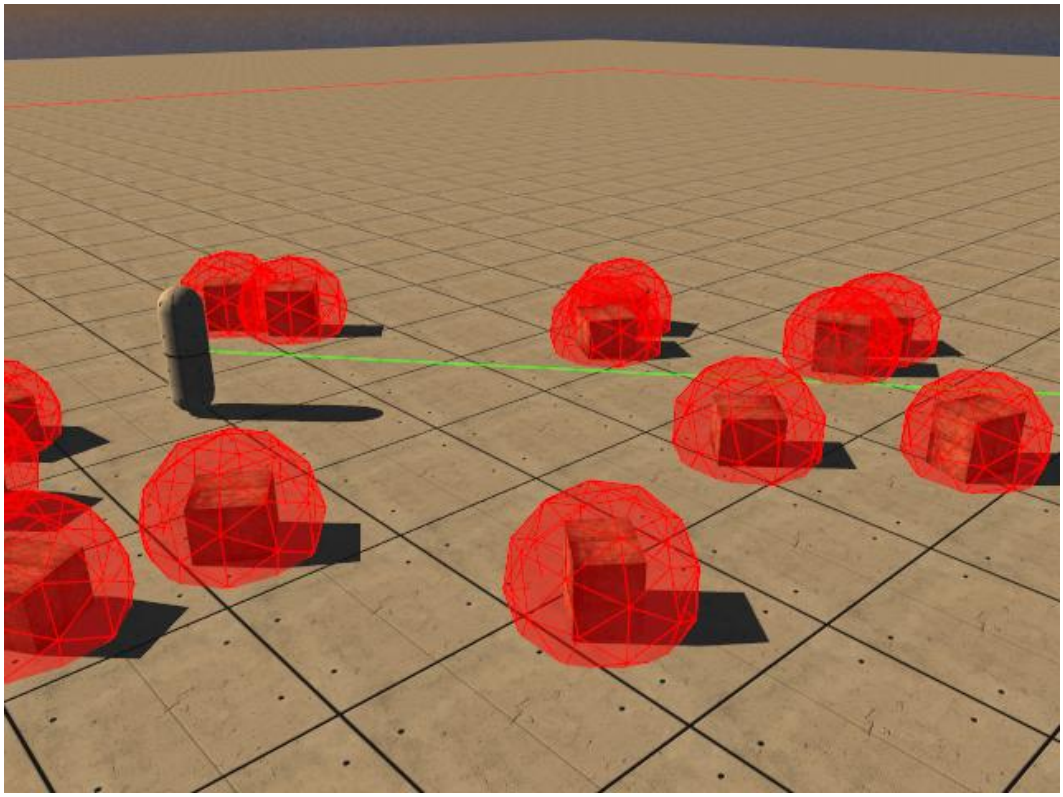


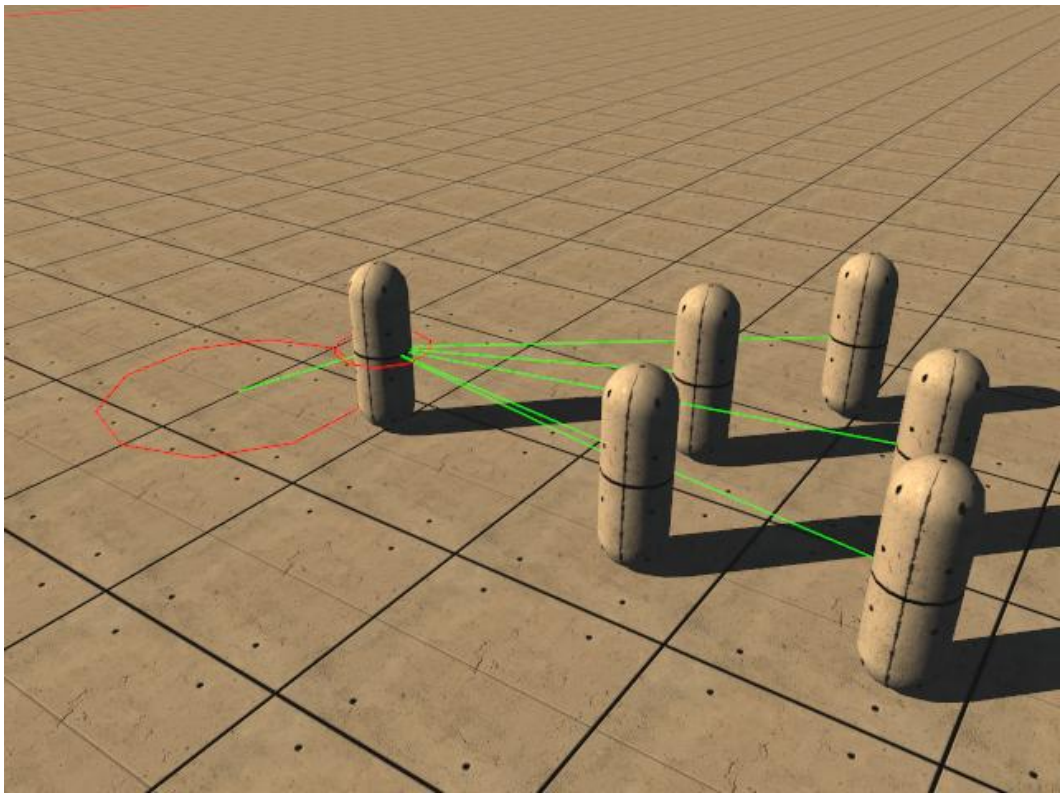


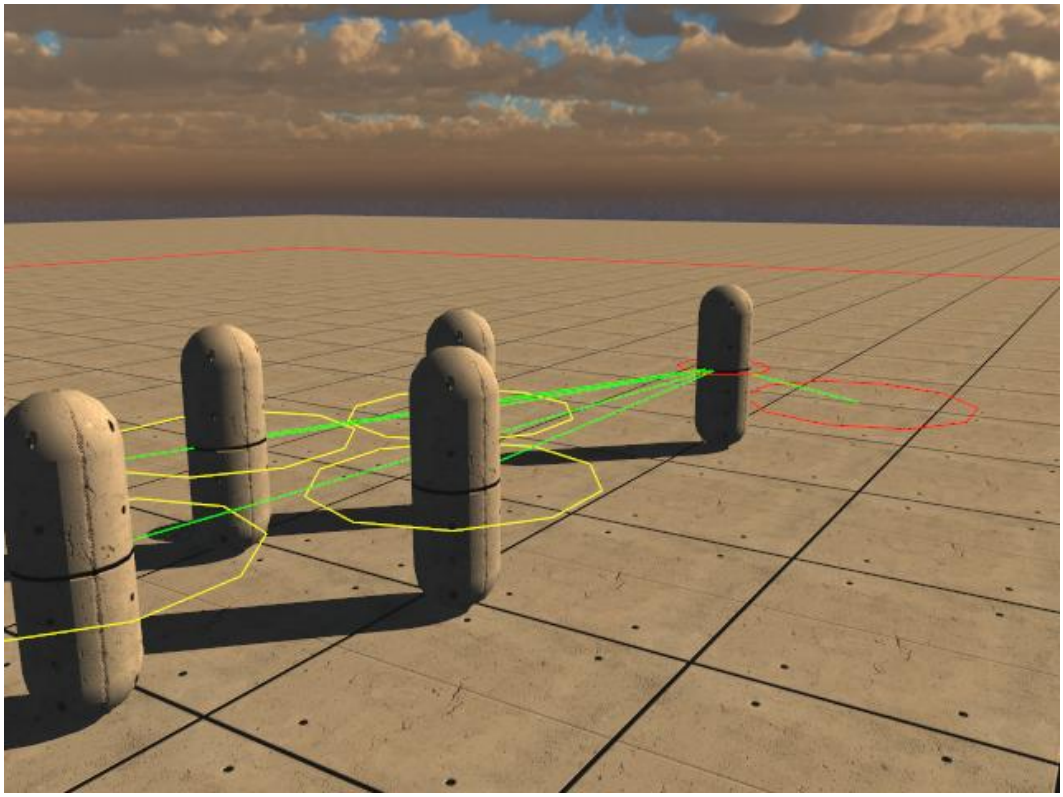




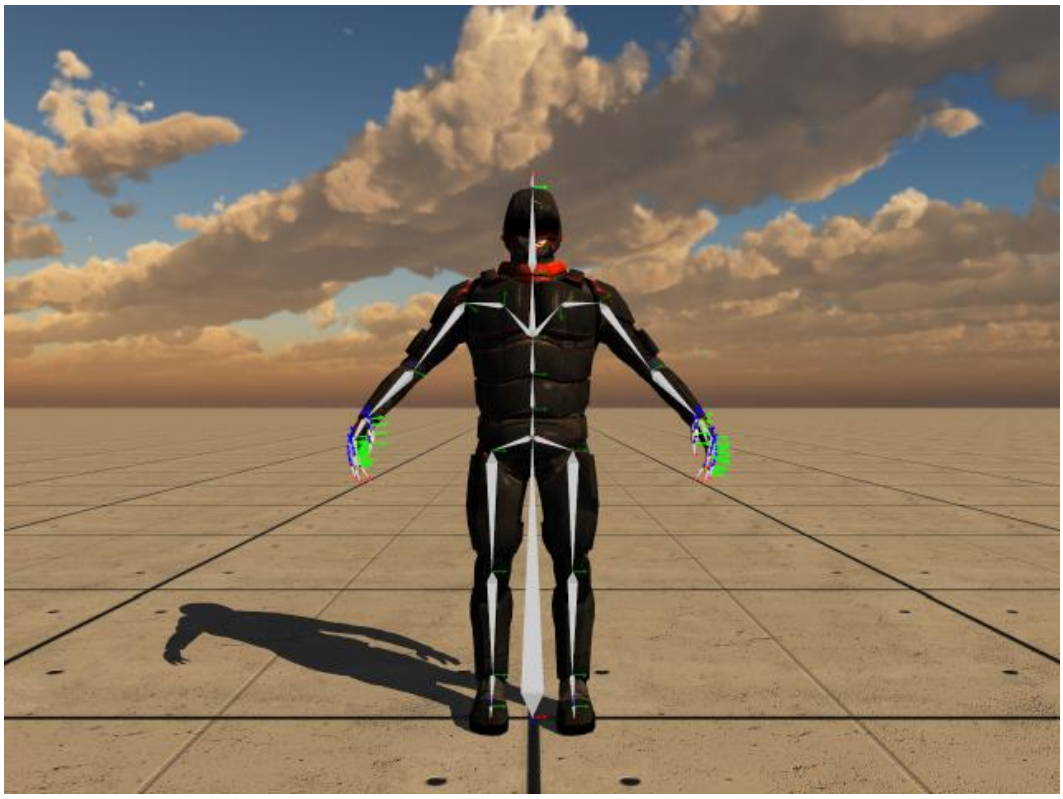


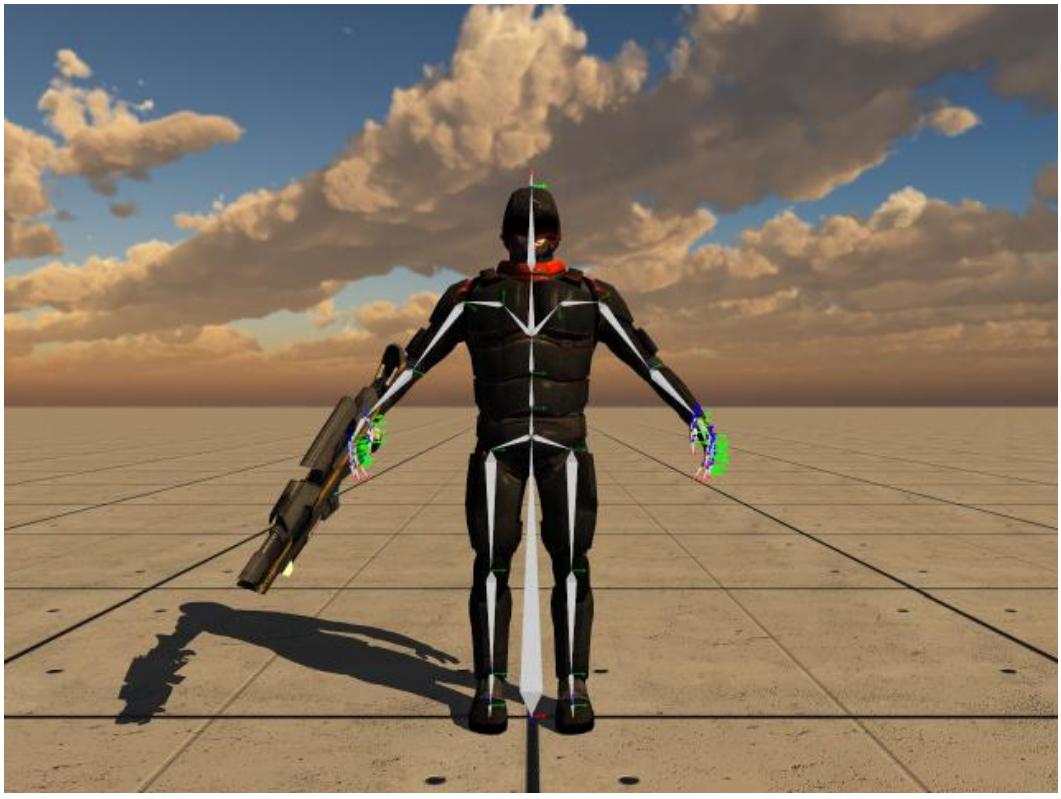


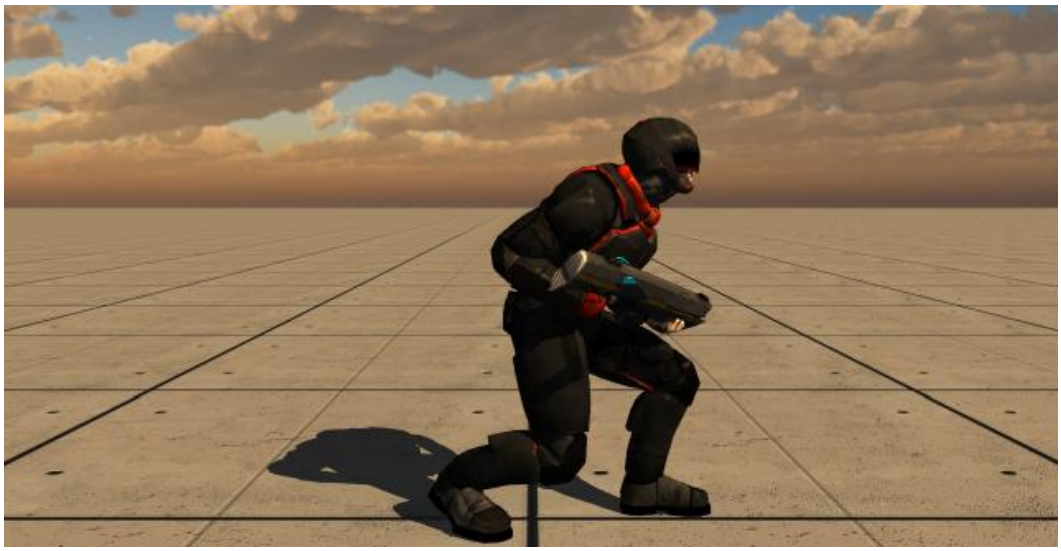


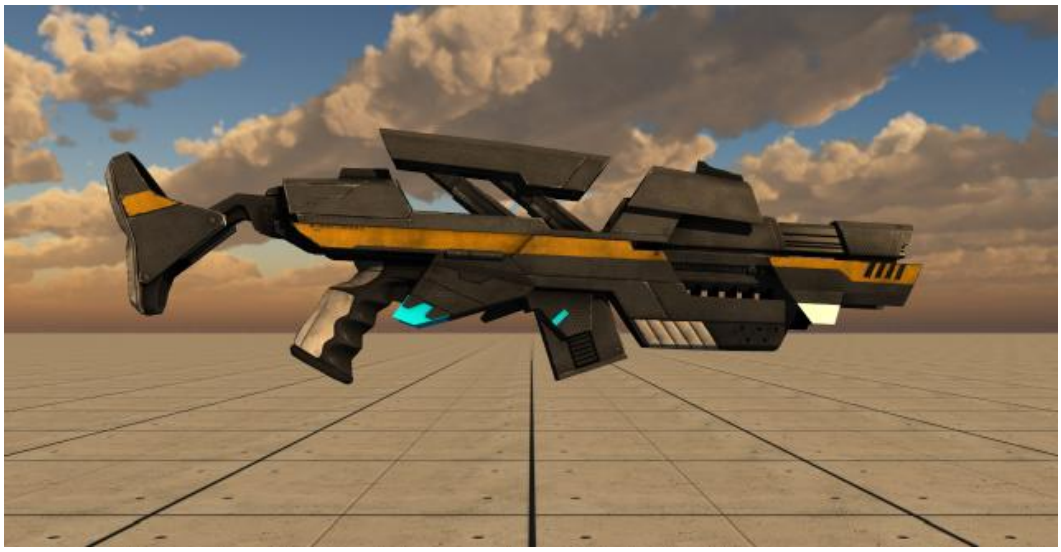


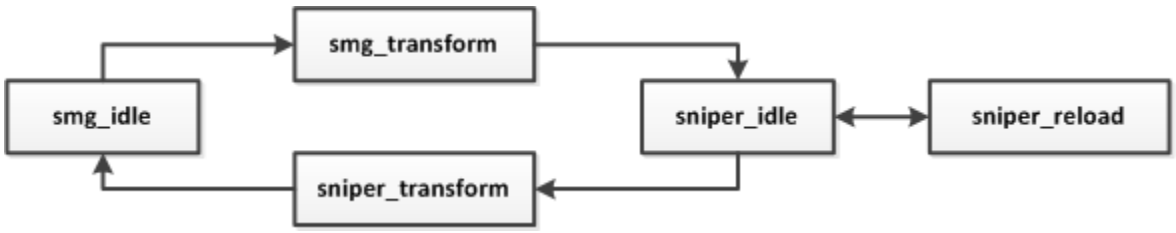
Chapter 3: Character Animations

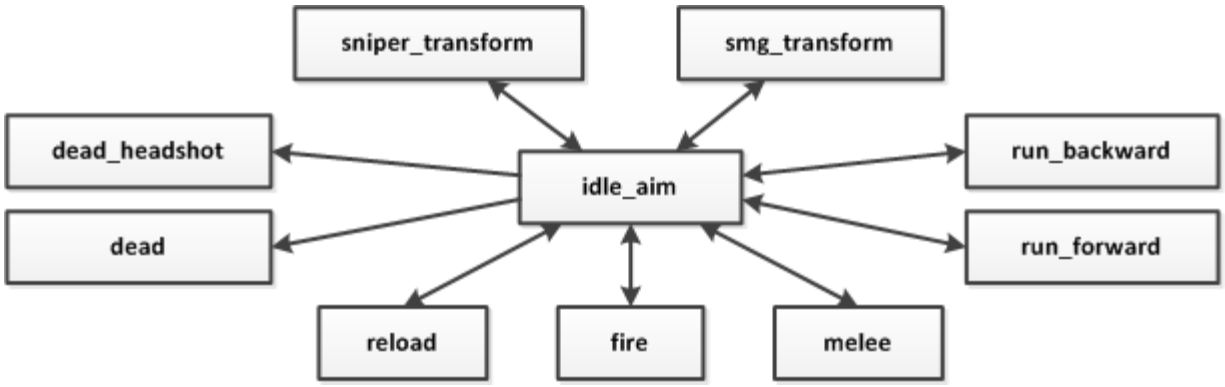




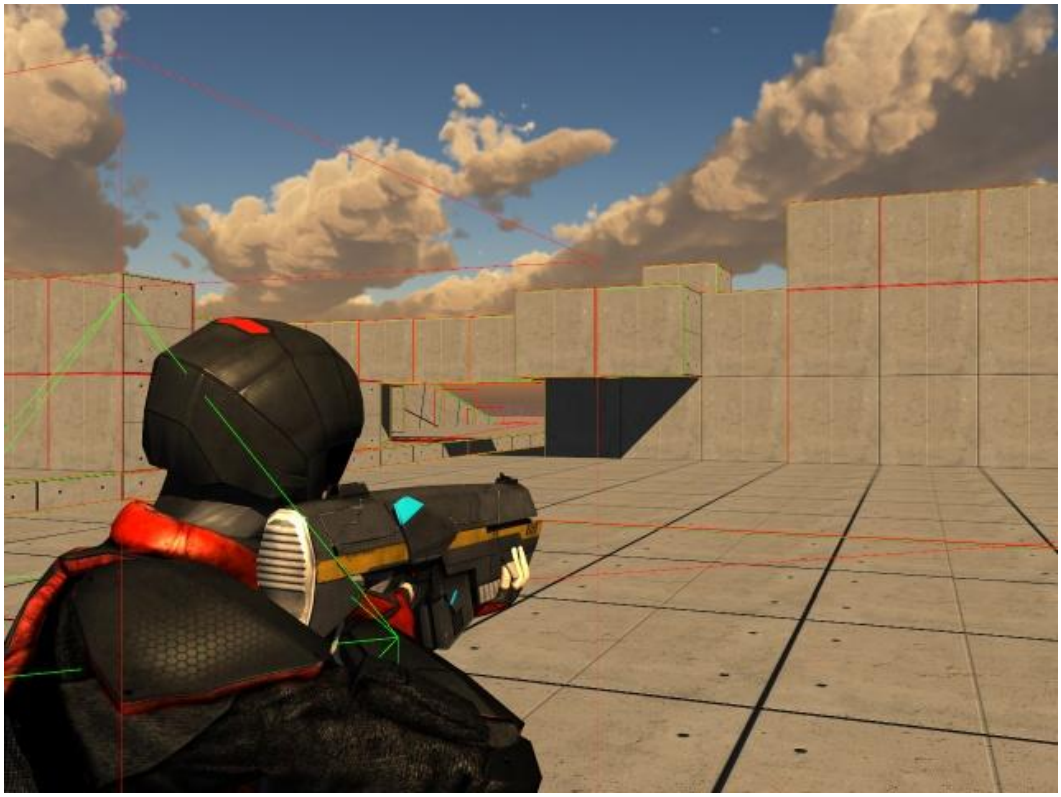


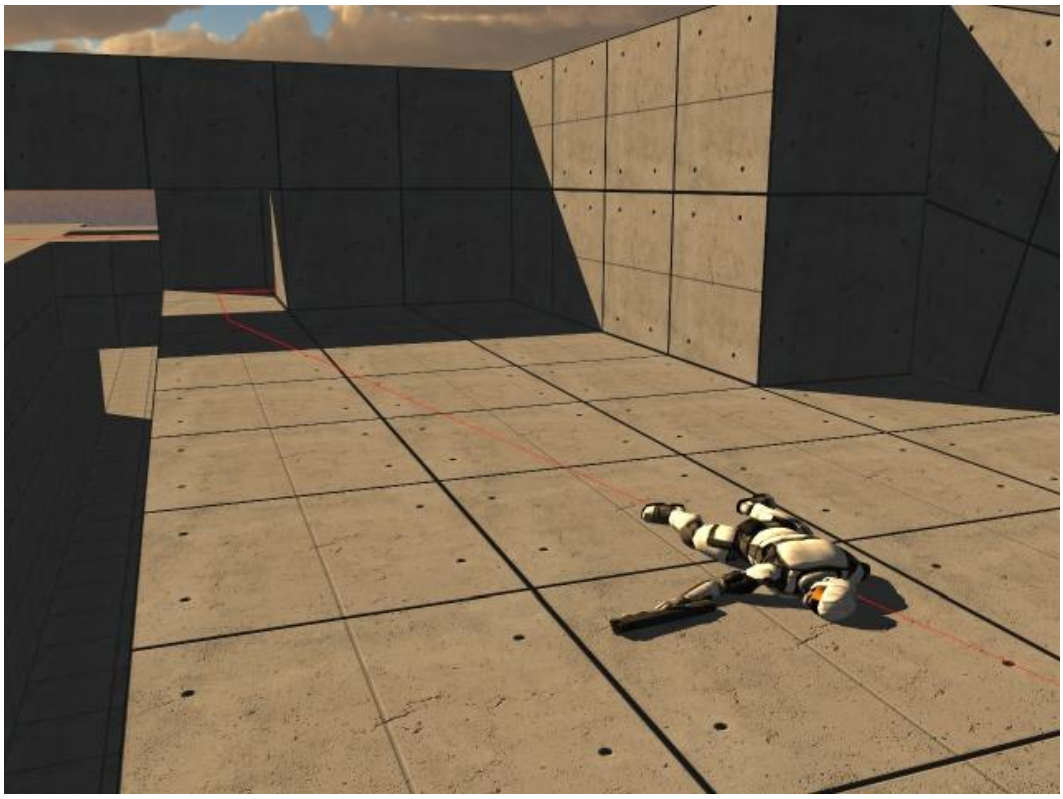


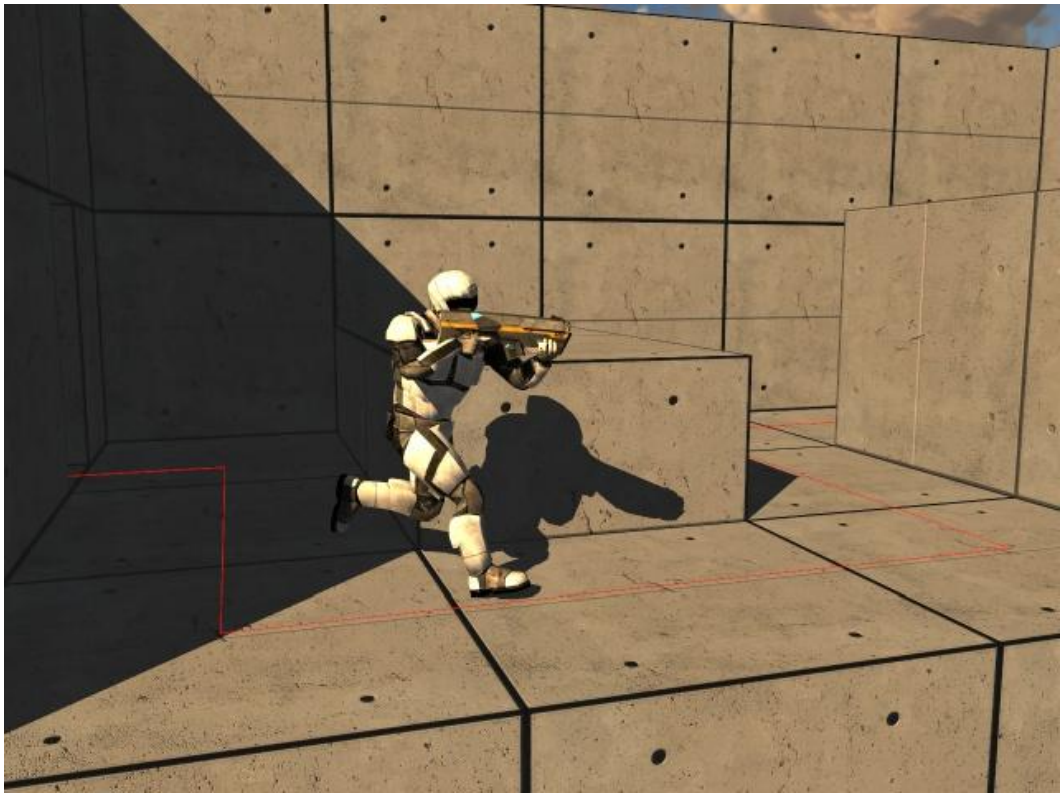

smg_transform
smg_idle
sniper_idle
sniper_reload
sniper_transform

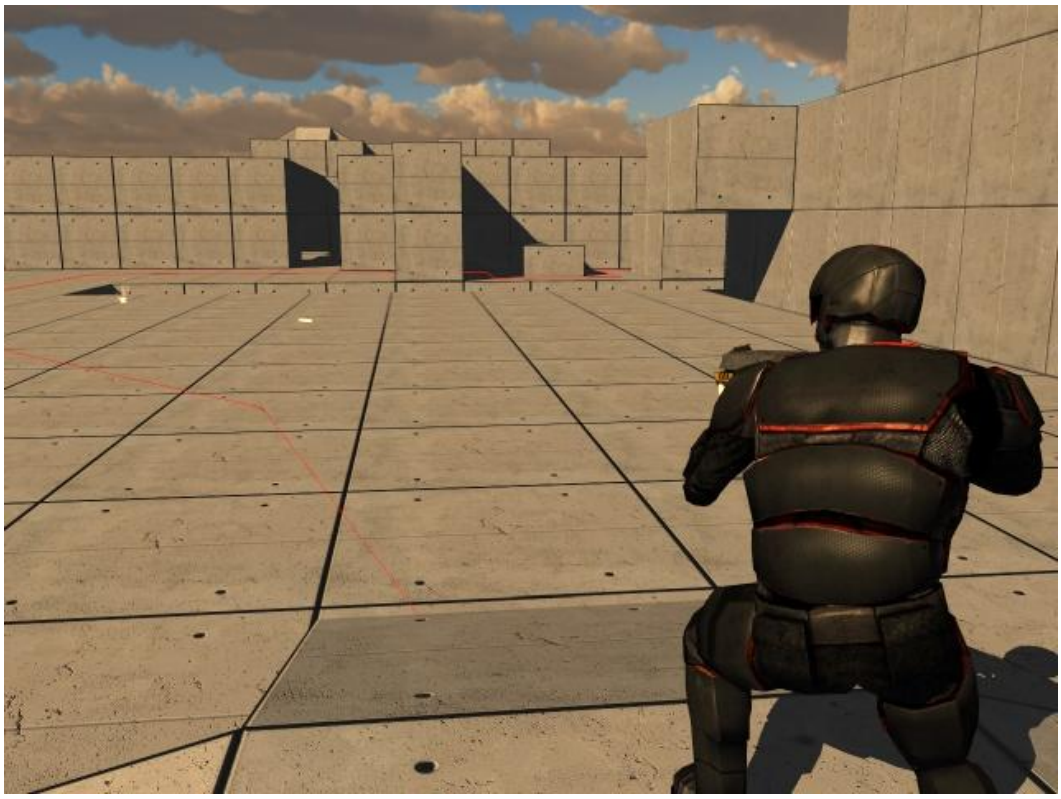

sniper_transform
smg_transform
dead_headshot
idle_aim
run_backward
dead
run_forward
reload
fire
melee

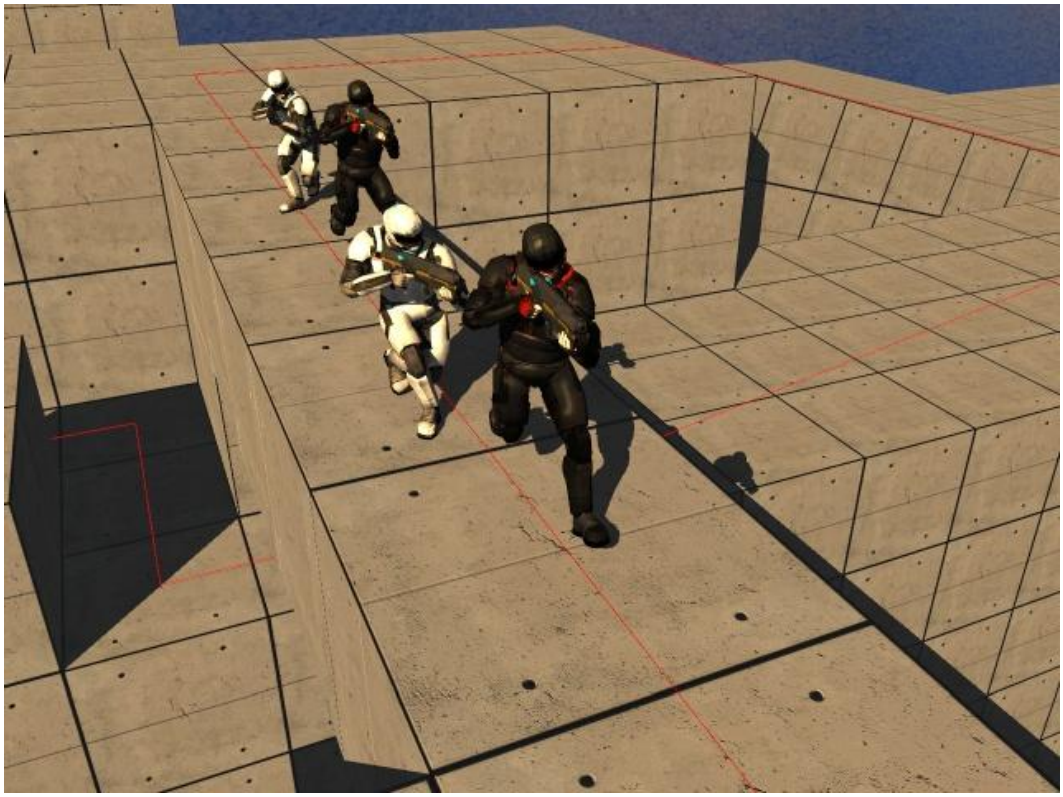
Chapter 4: Mind Body Control



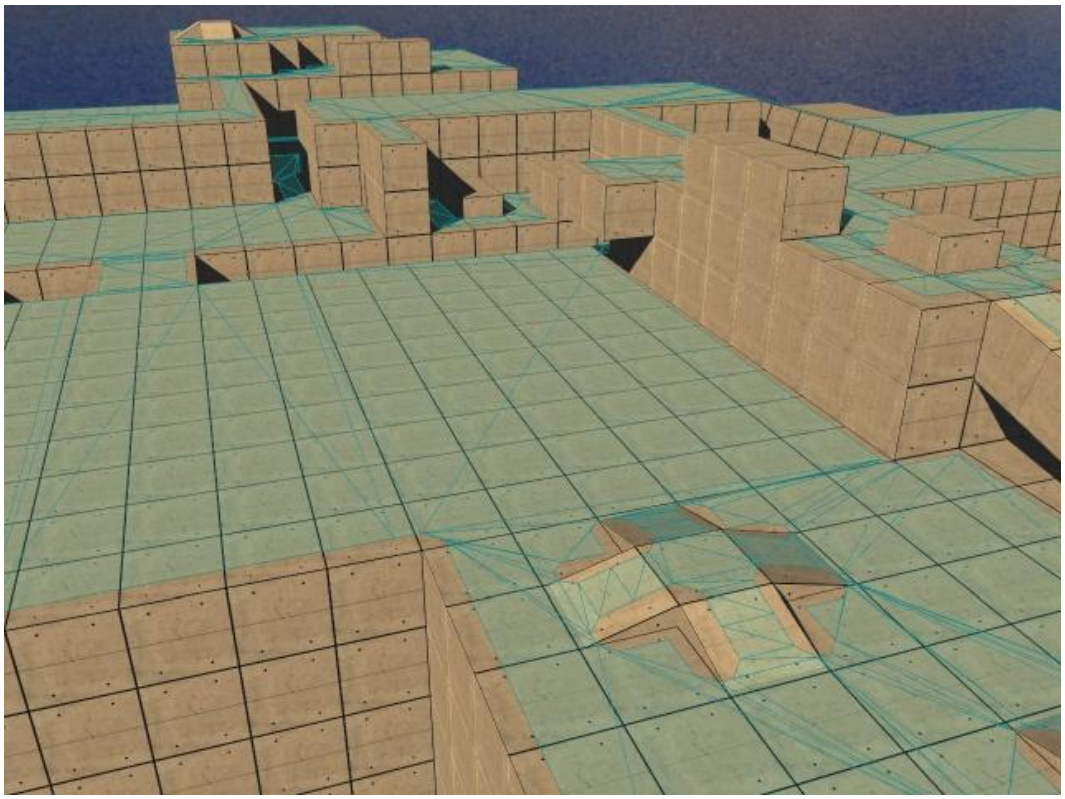


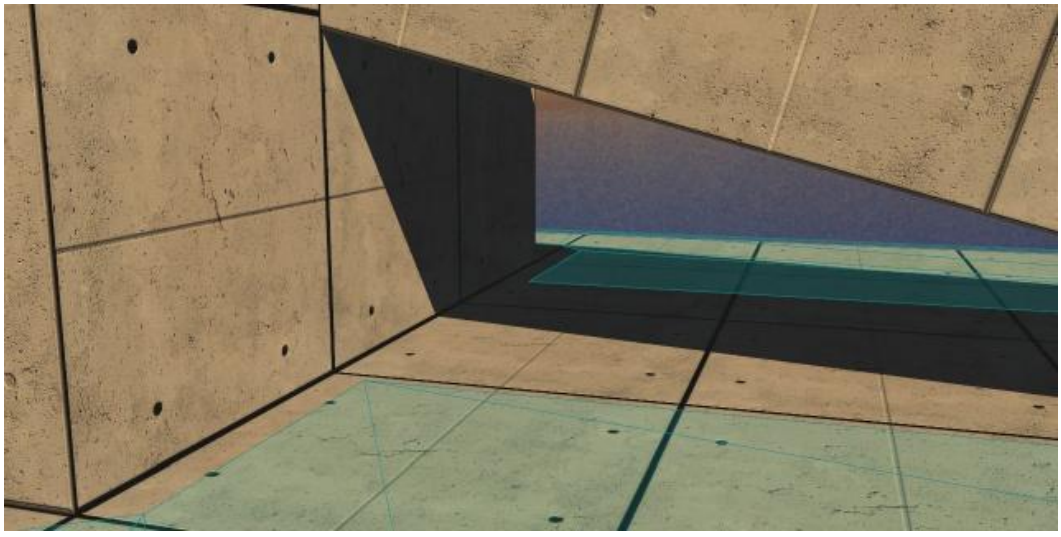


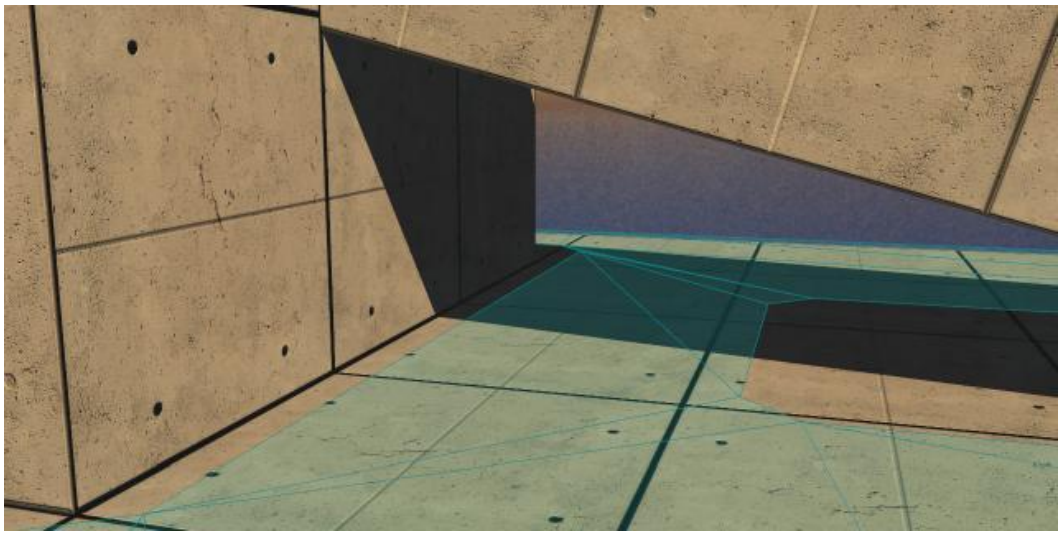


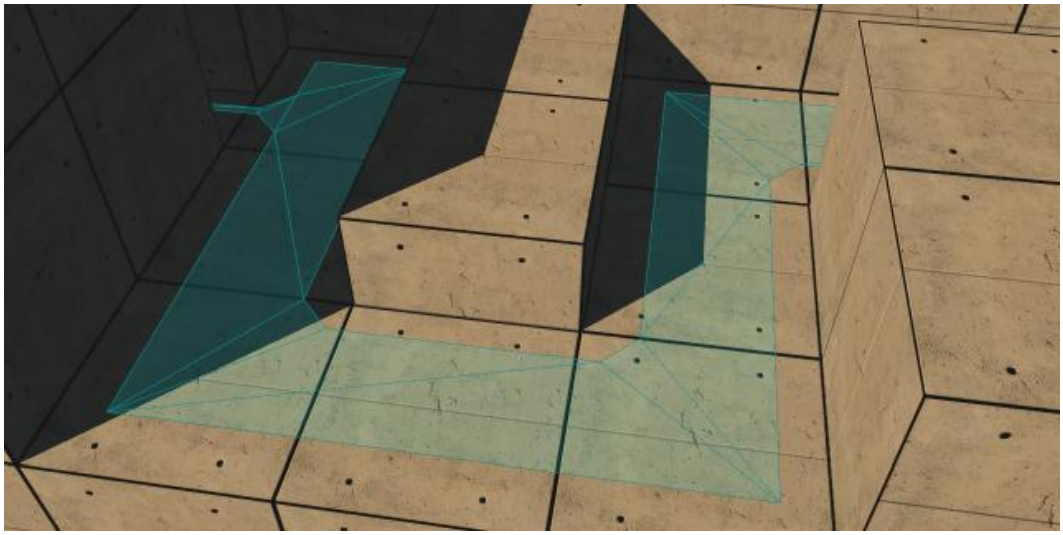


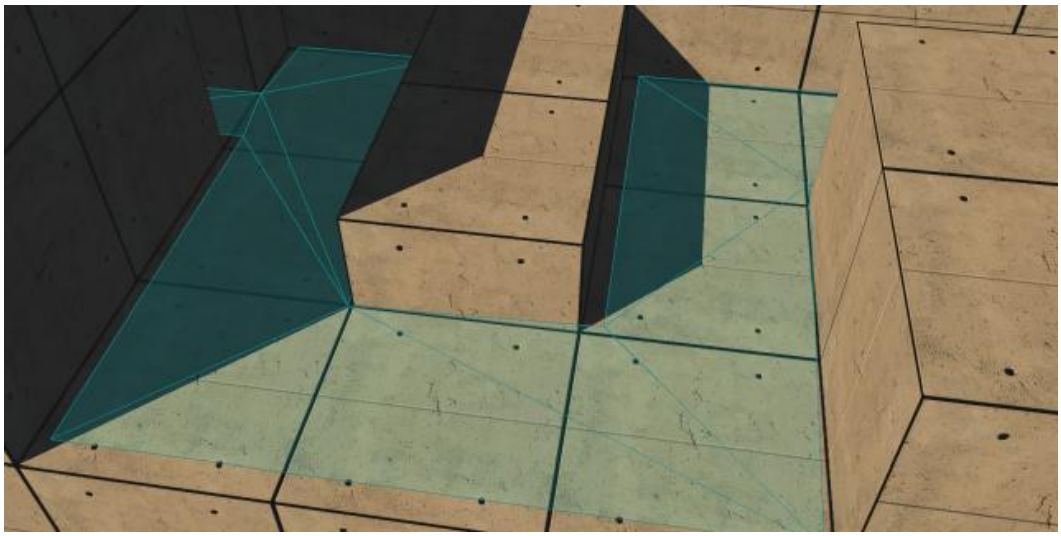
Chapter 5: Navigation

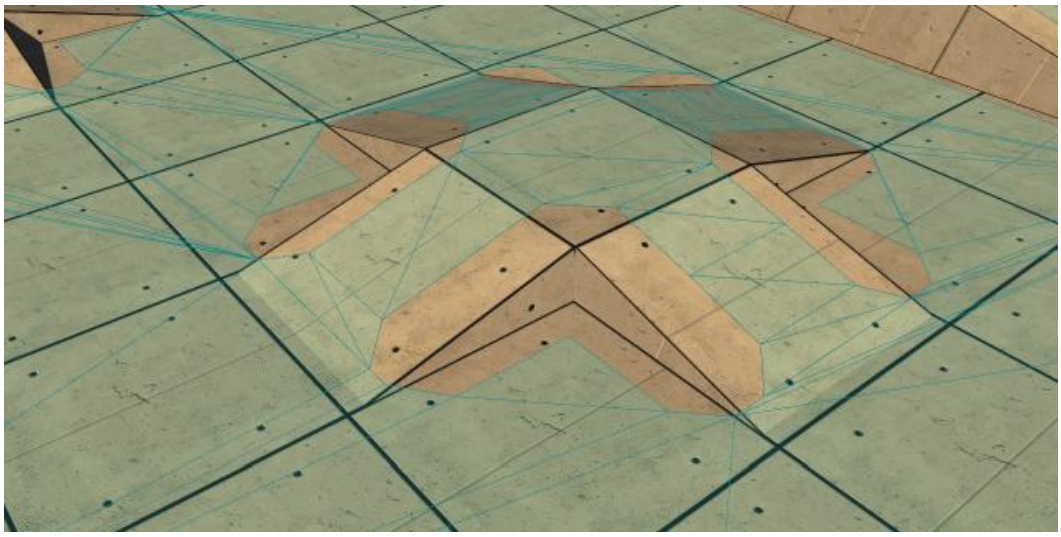


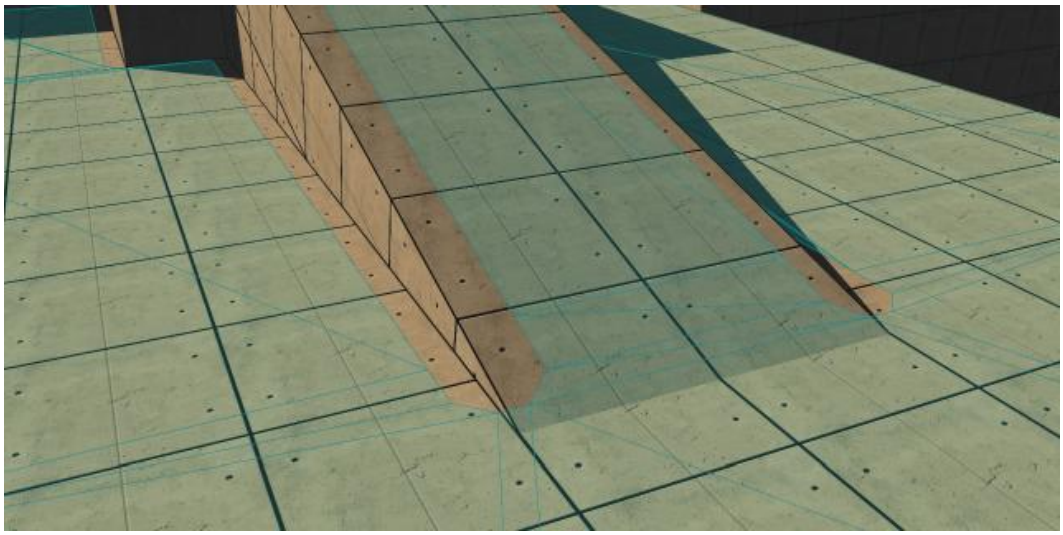


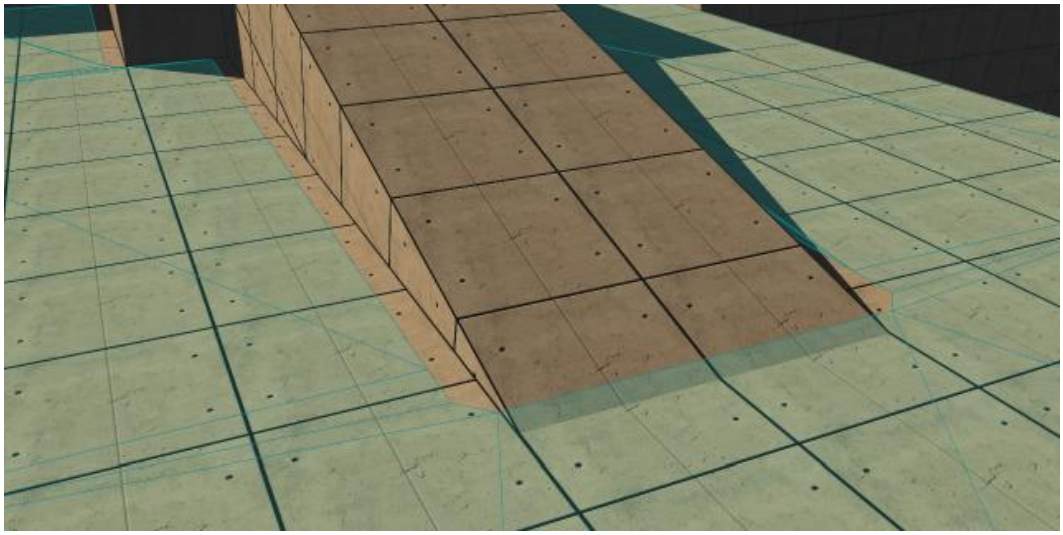


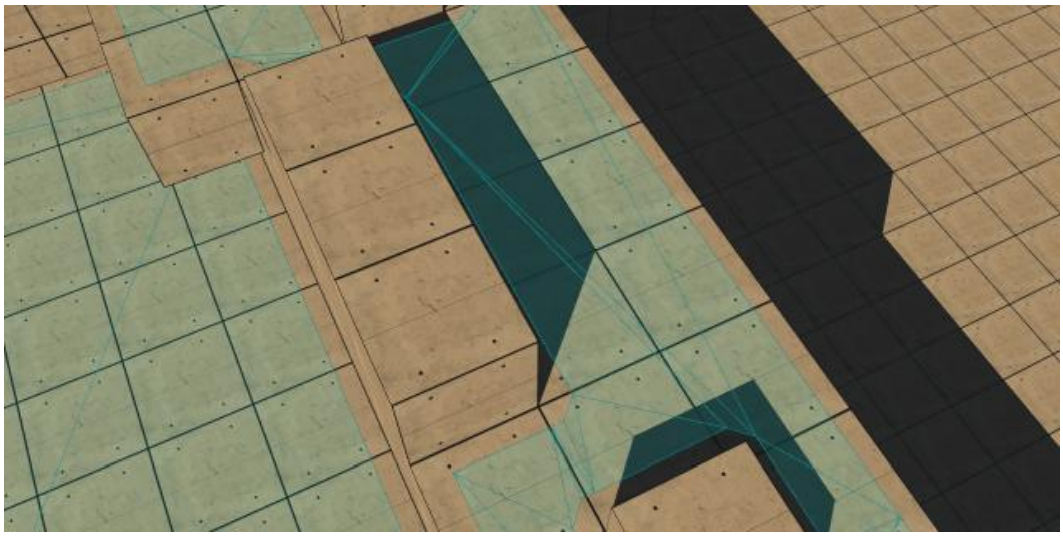


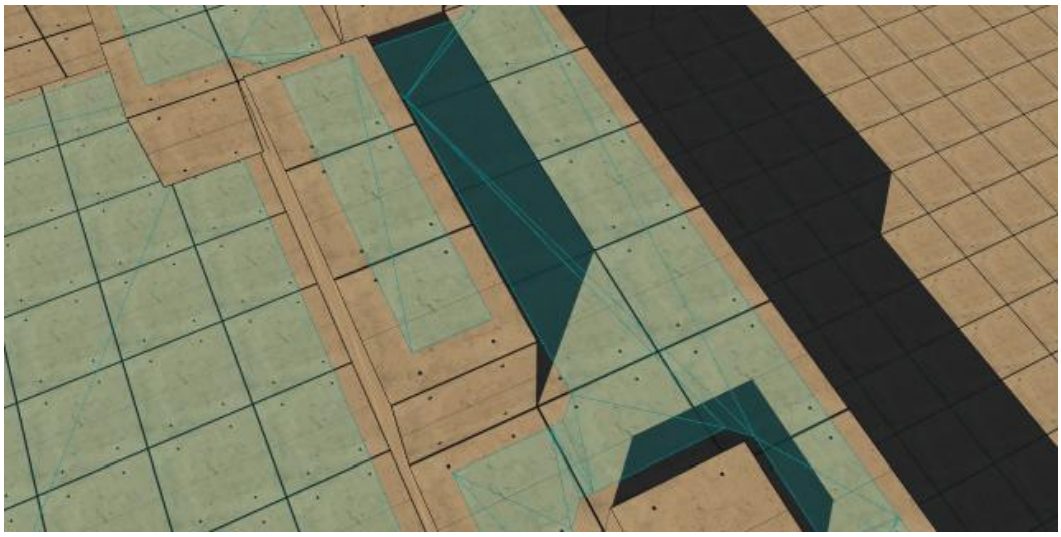


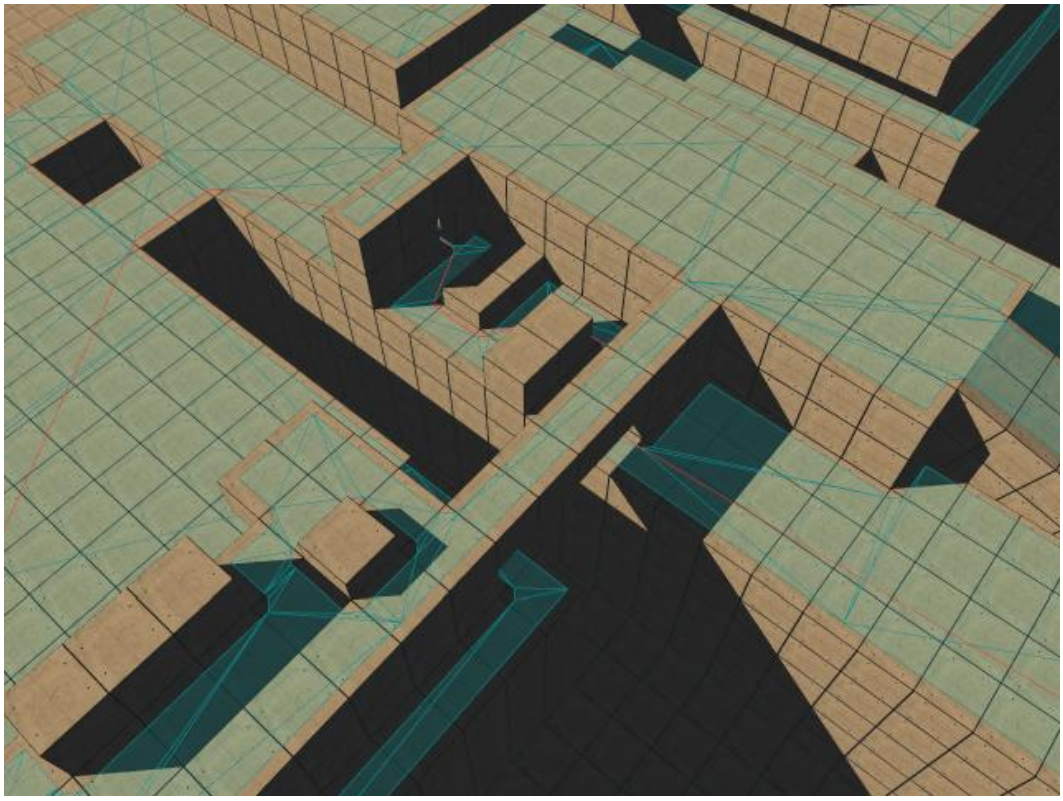


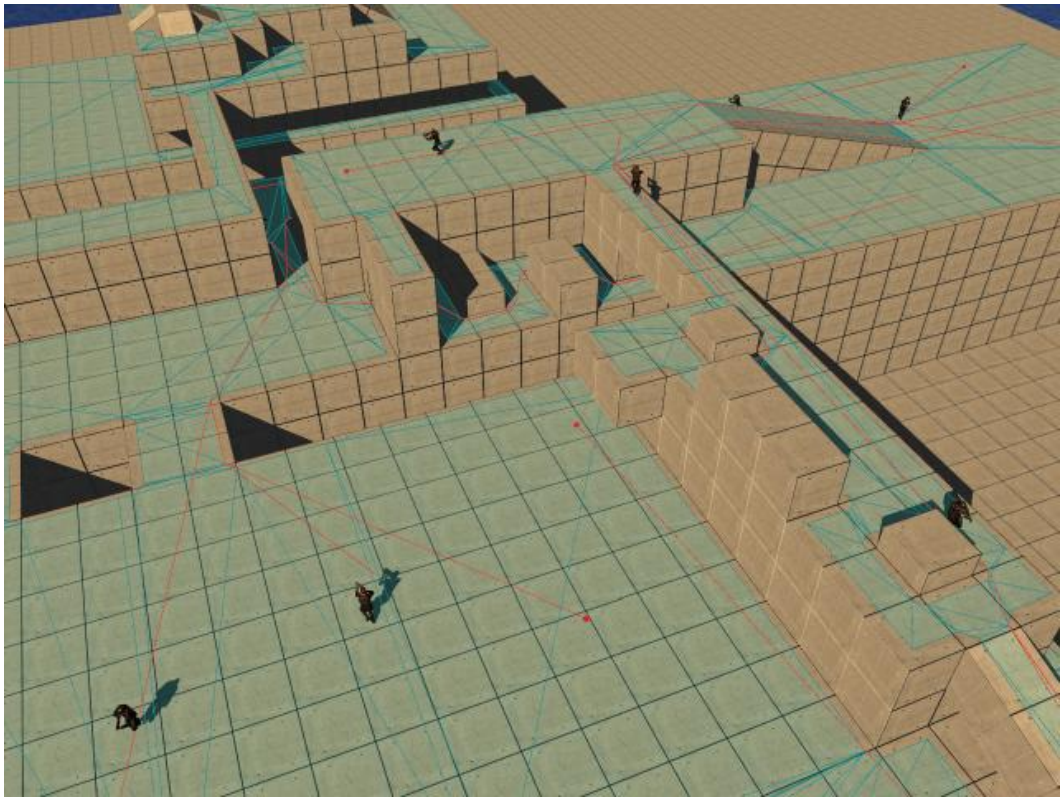




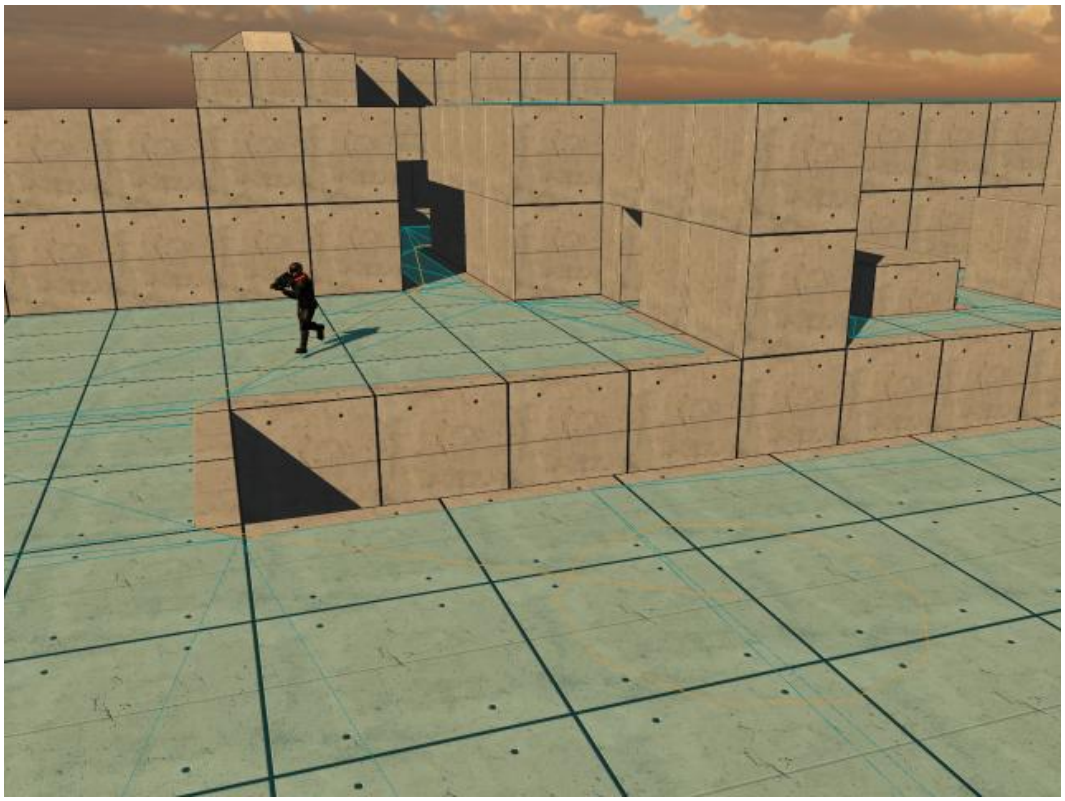


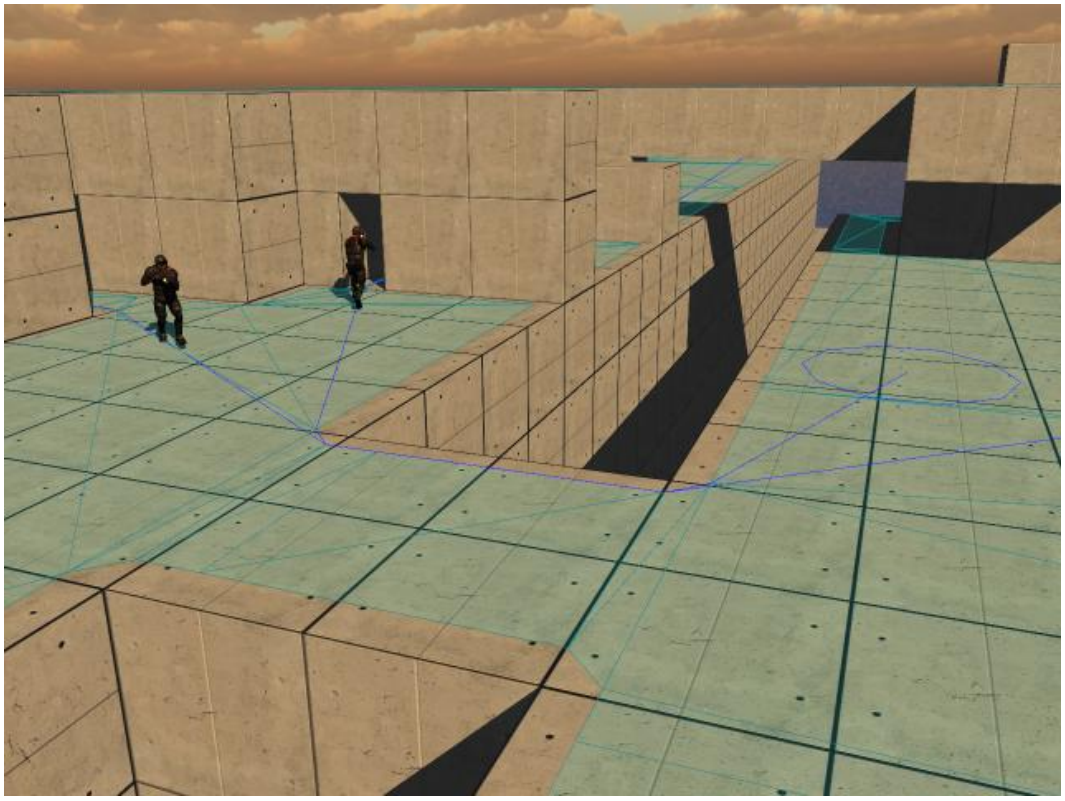


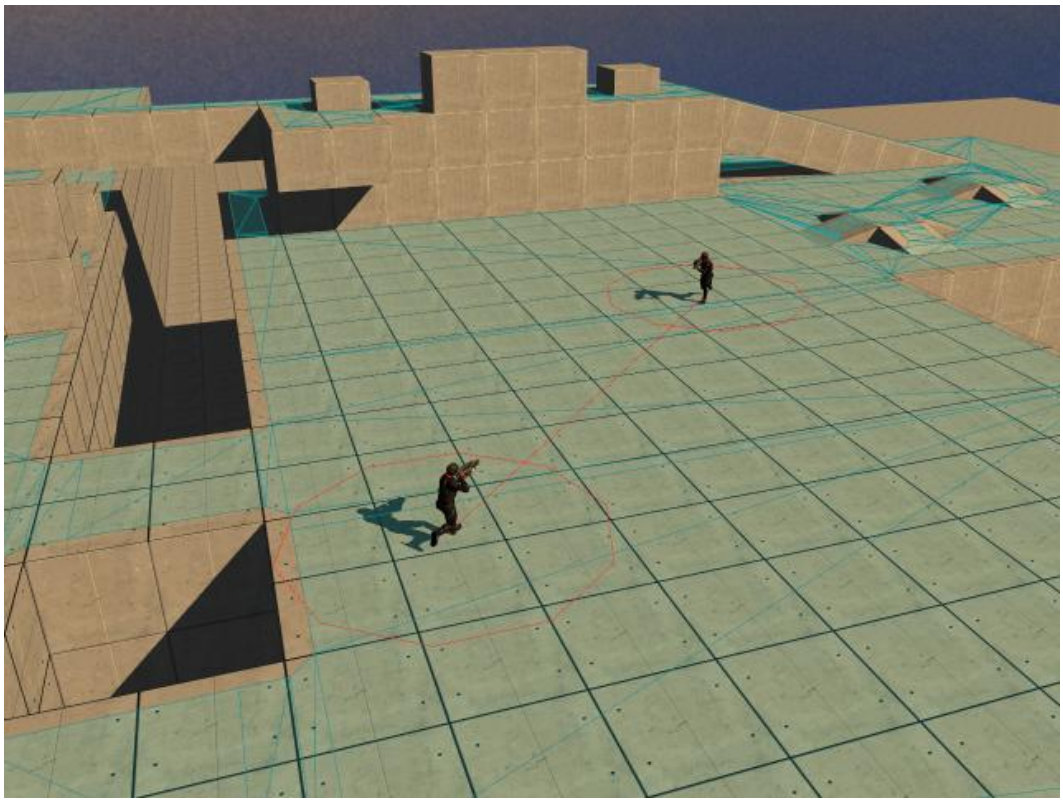


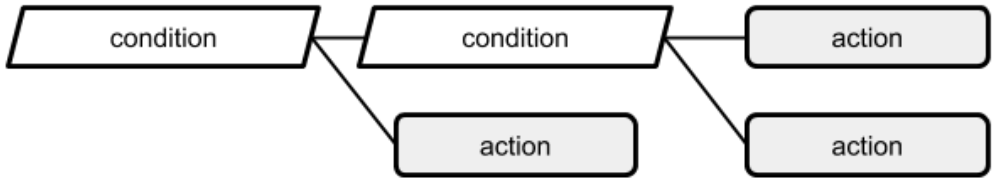


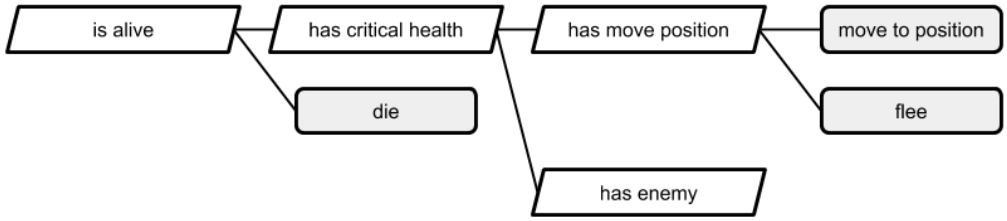
Chapter 6: Decision Making

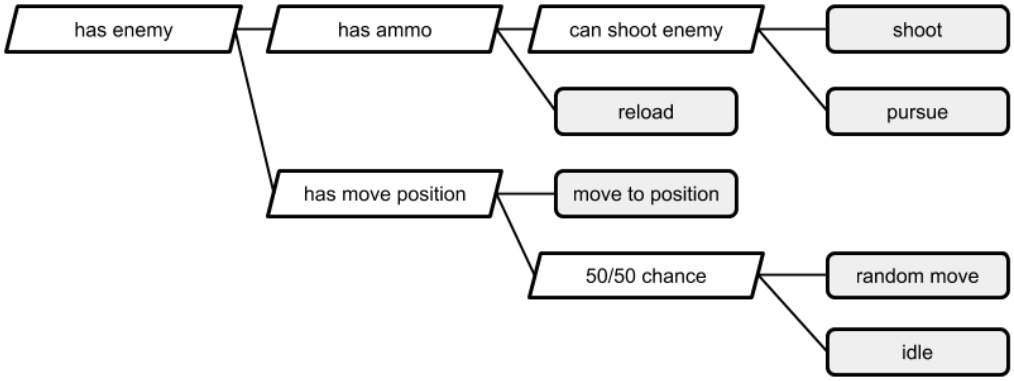


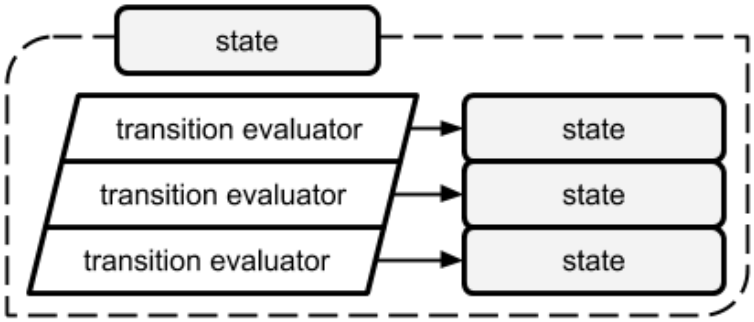





condition
condition
action
action
action


is alive
has critical health
has move position
move to position
die
flee
has enemy


has enemy
has ammo
can shoot enemy
shoot
reload
pursue
has move position
move to position
50/50 chance
random move
idle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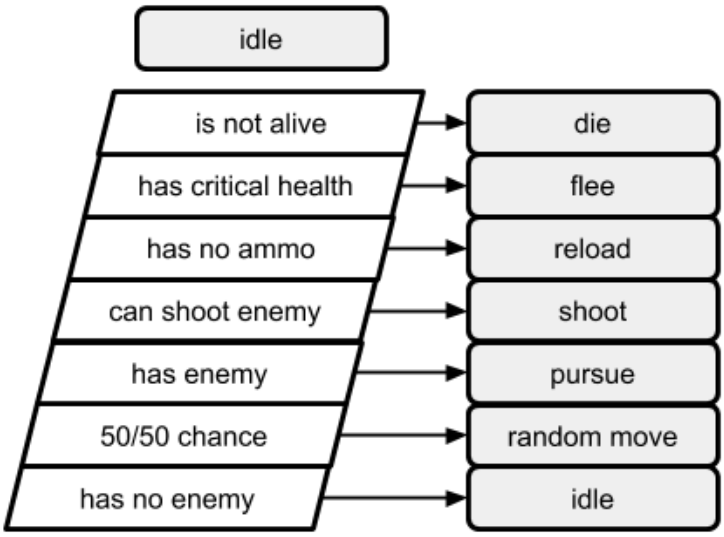
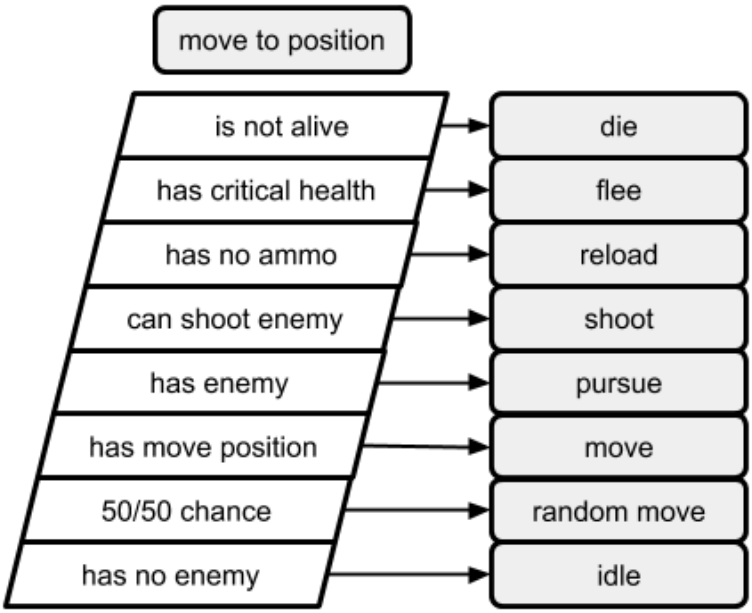
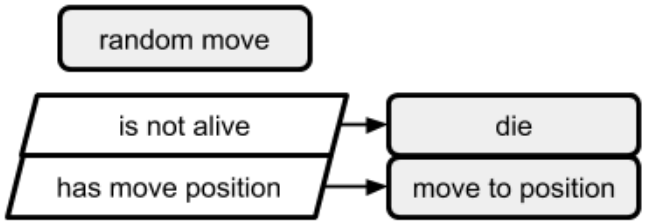
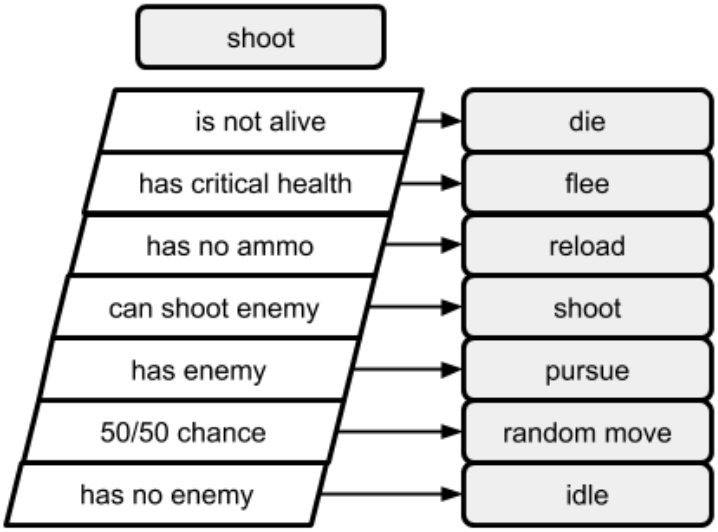
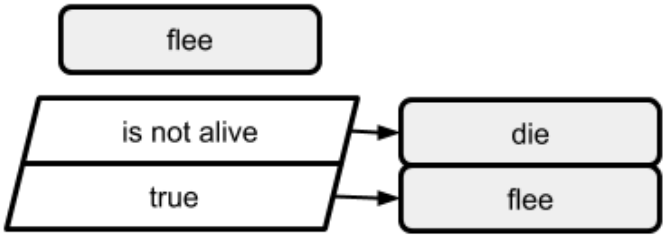
transition evaluator
transition evaluator
state
state
state

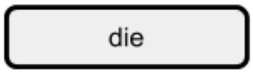

idle
is not alive
has critical health
has no ammo
can shoot enemy
has enemy
50/50 chance
has no enemy
die
flee
reload
shoot
pursue
random move
idle


move to position
is not alive
has critical health
has no ammo
can shoot enemy
has enemy
has move position
50/50 chance
has no enemy
die
flee
reload
shoot
pursue
move
random move
idle


random move
is not alive
has move position
die
move to position


shoot
is not alive
has critical health
has no ammo
can shoot enemy
has enemy
50/50 chance
has no enemy
die
flee
reload
shoot
pursue
random move
idle


flee
is not alive
true
die
flee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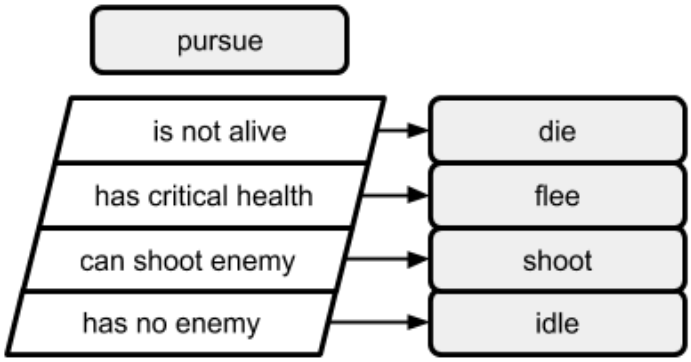
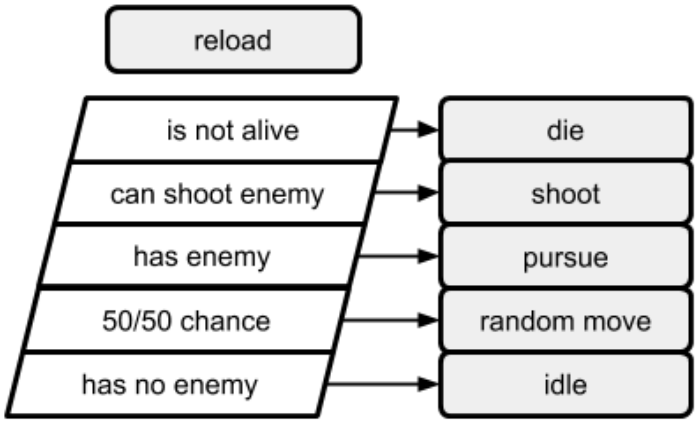
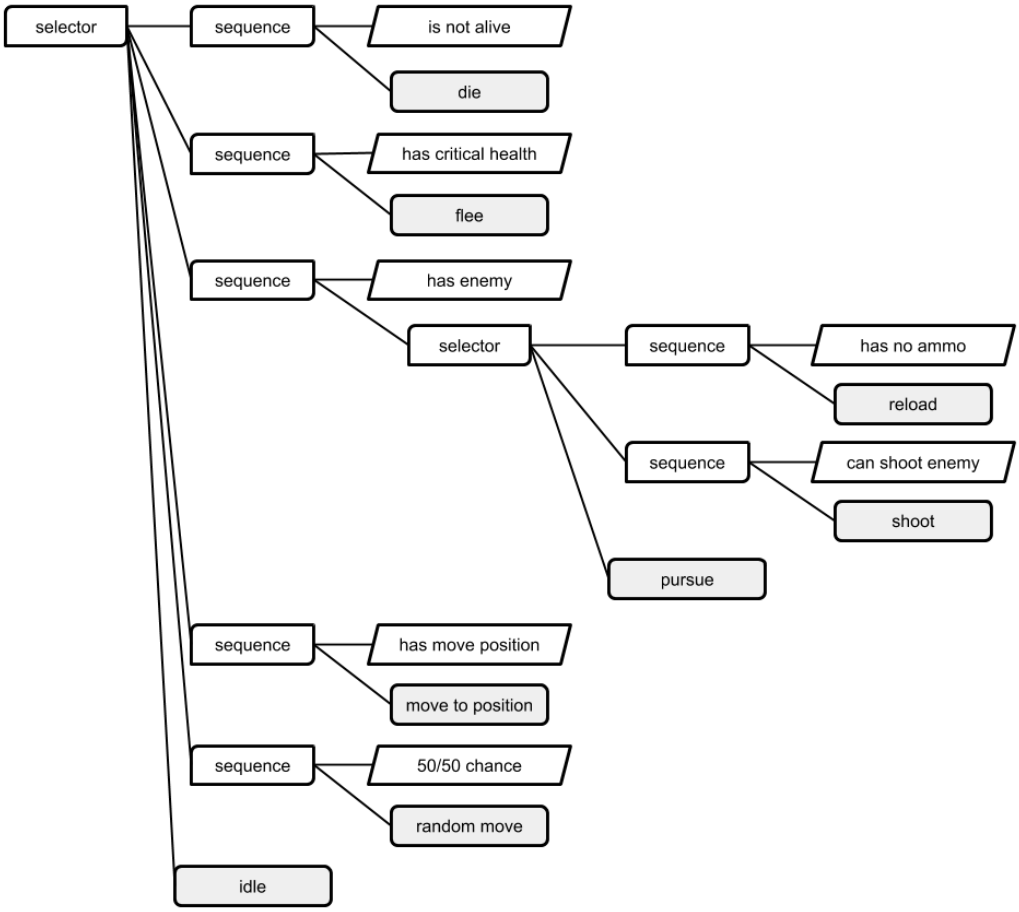
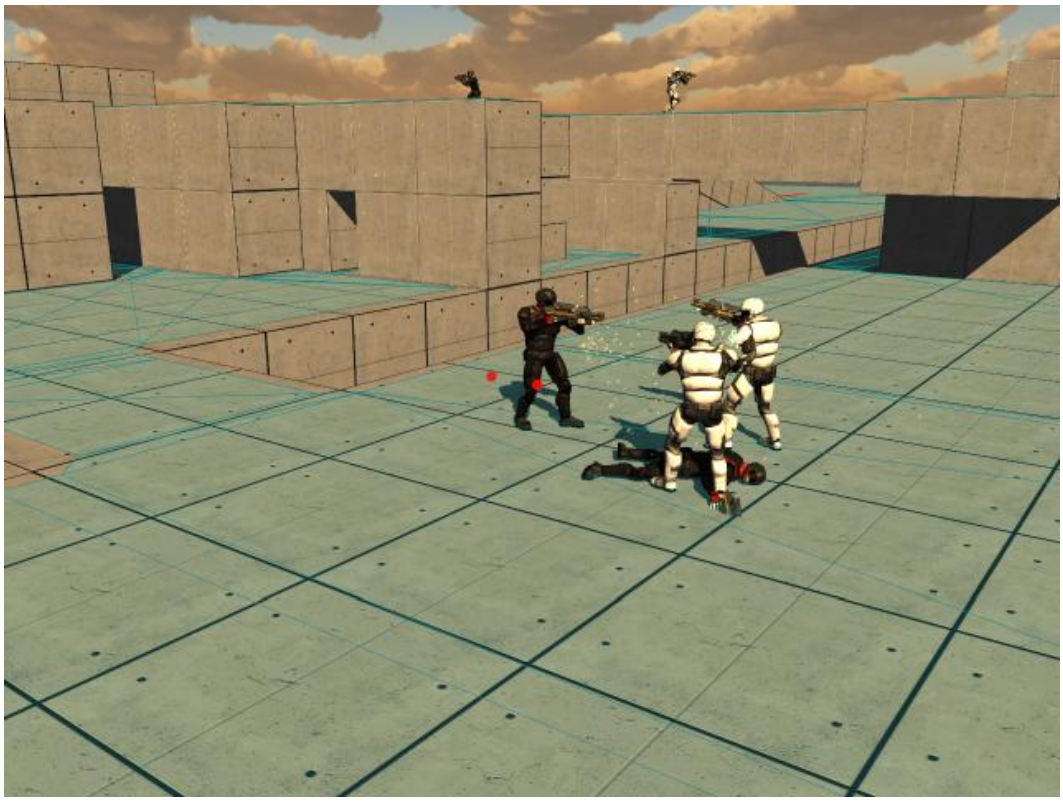
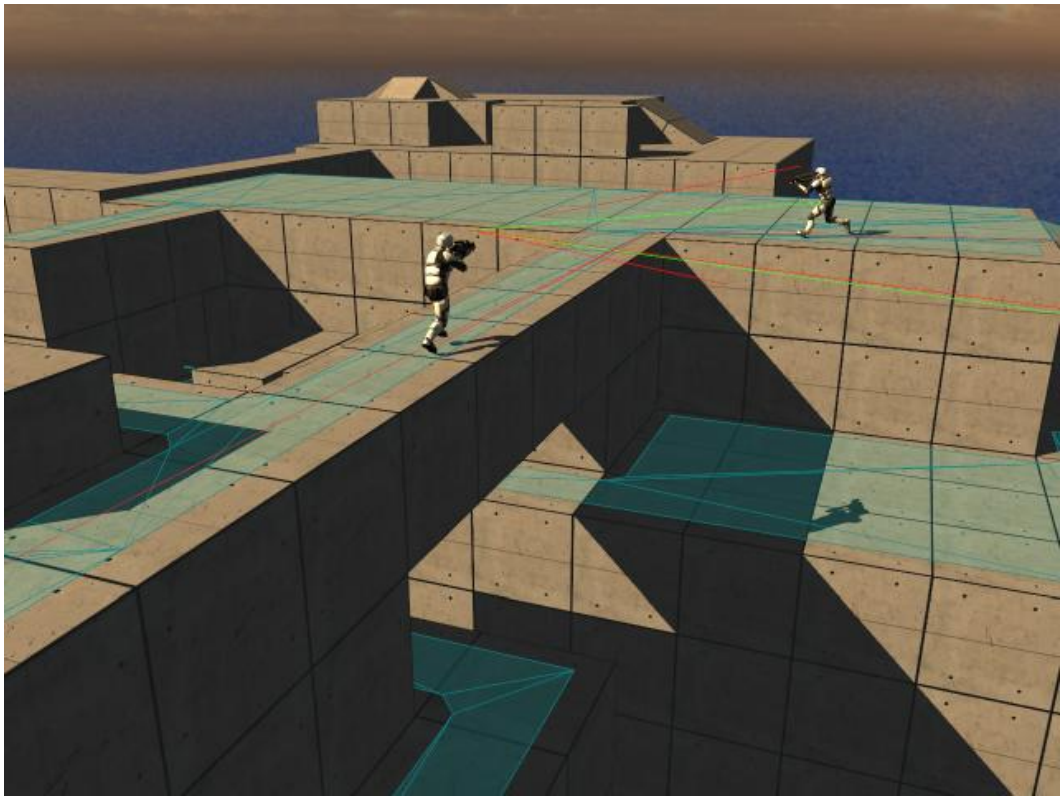
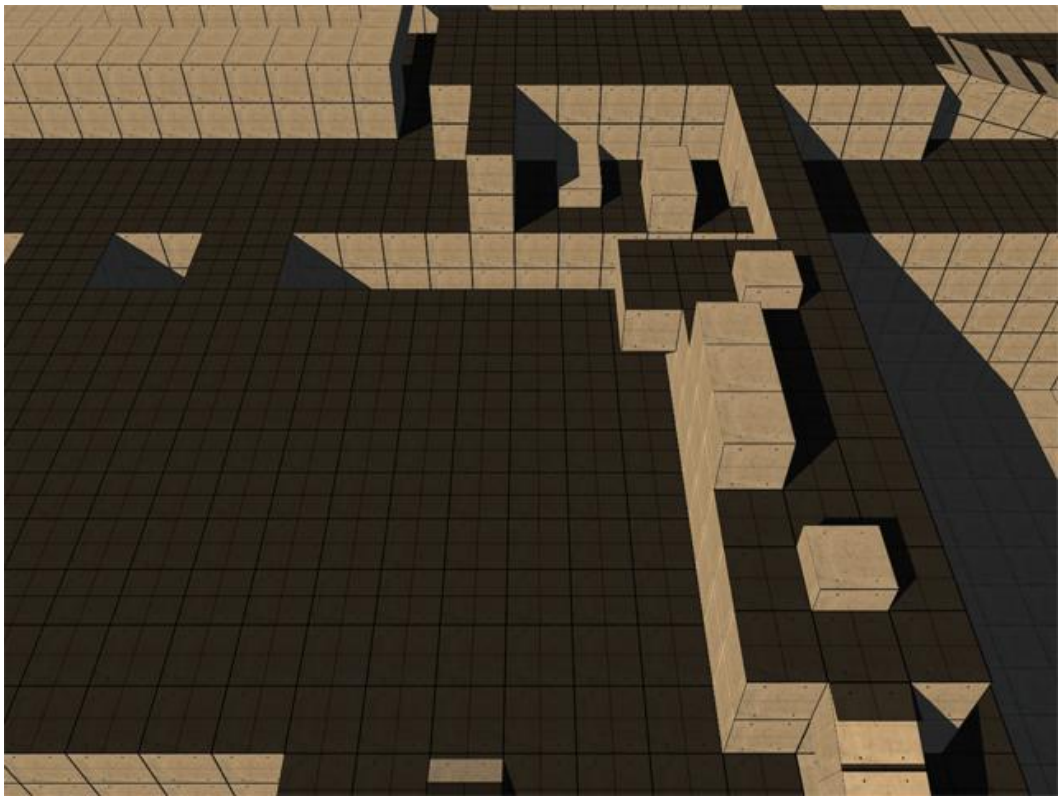
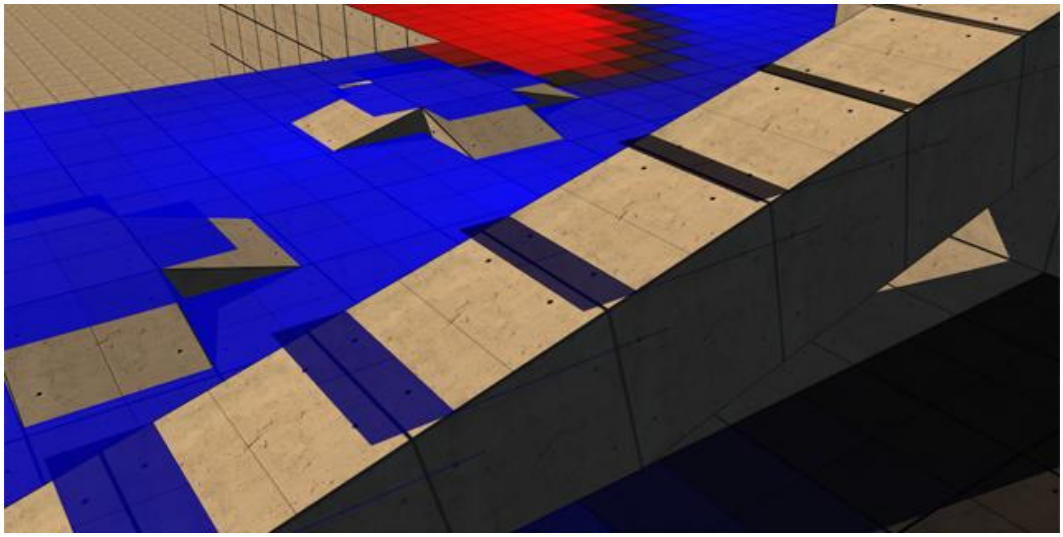
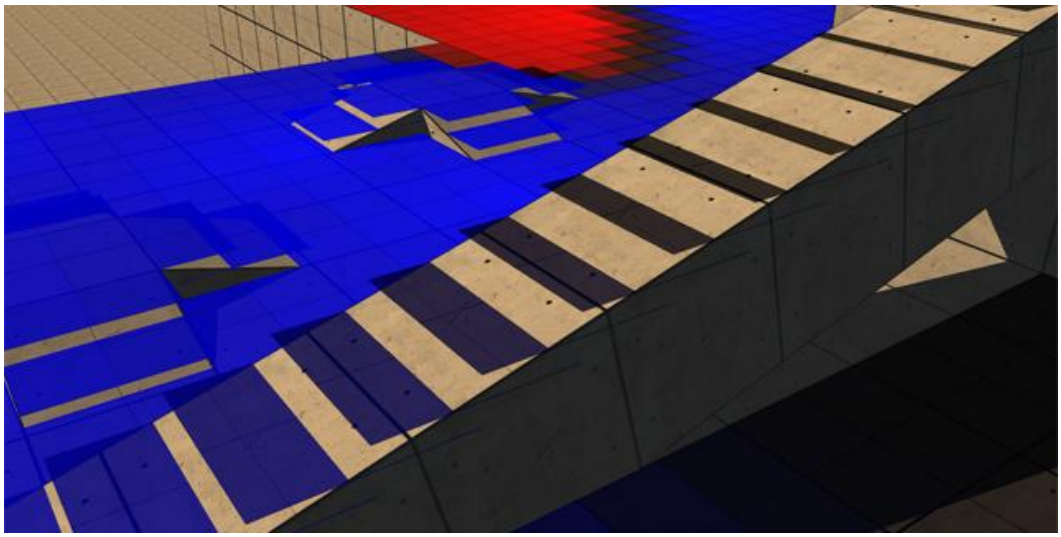
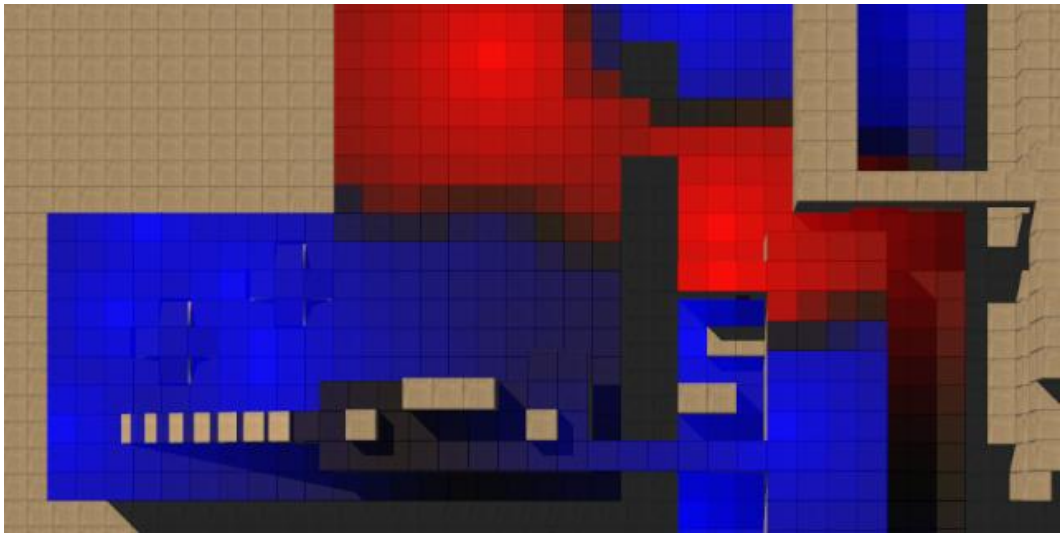
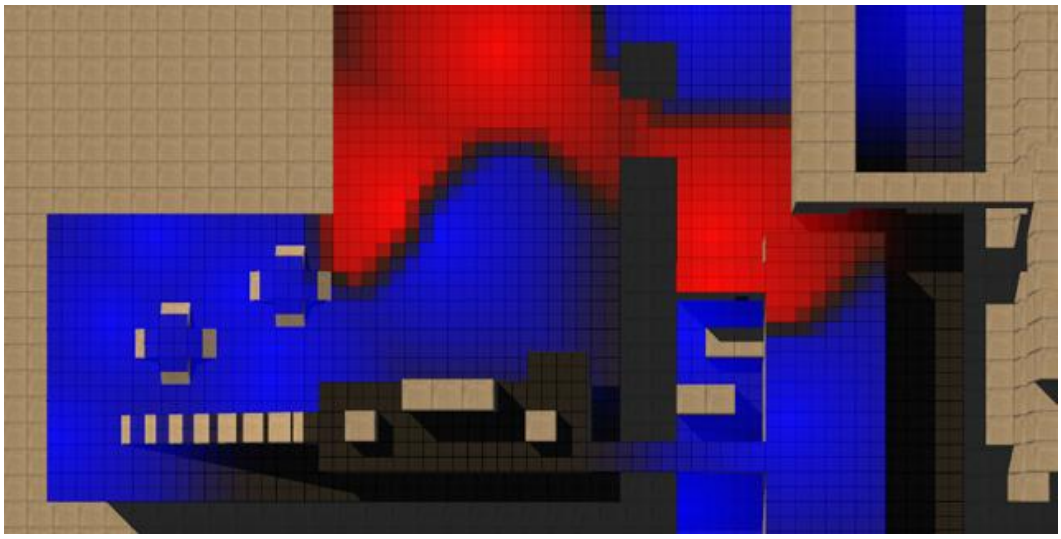
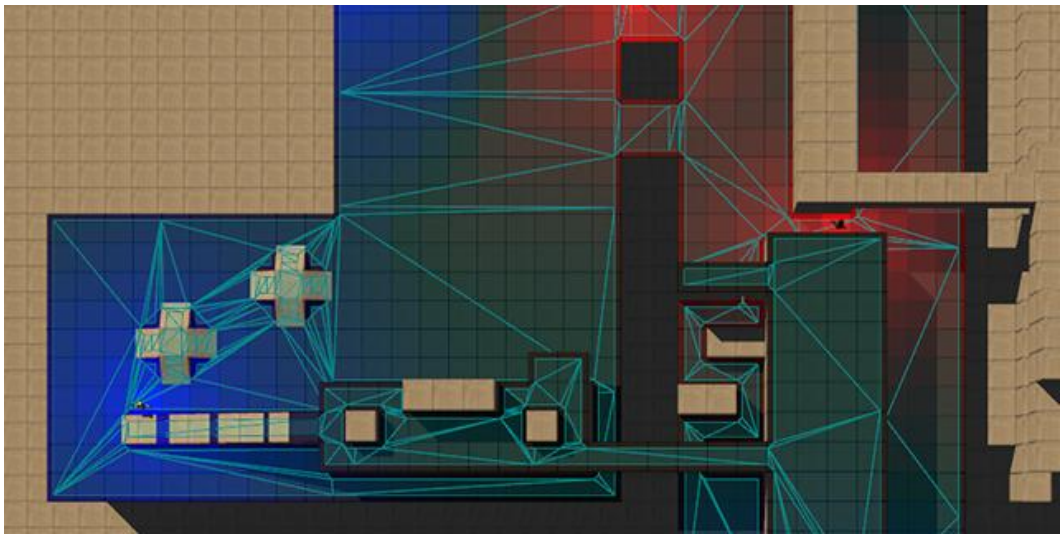
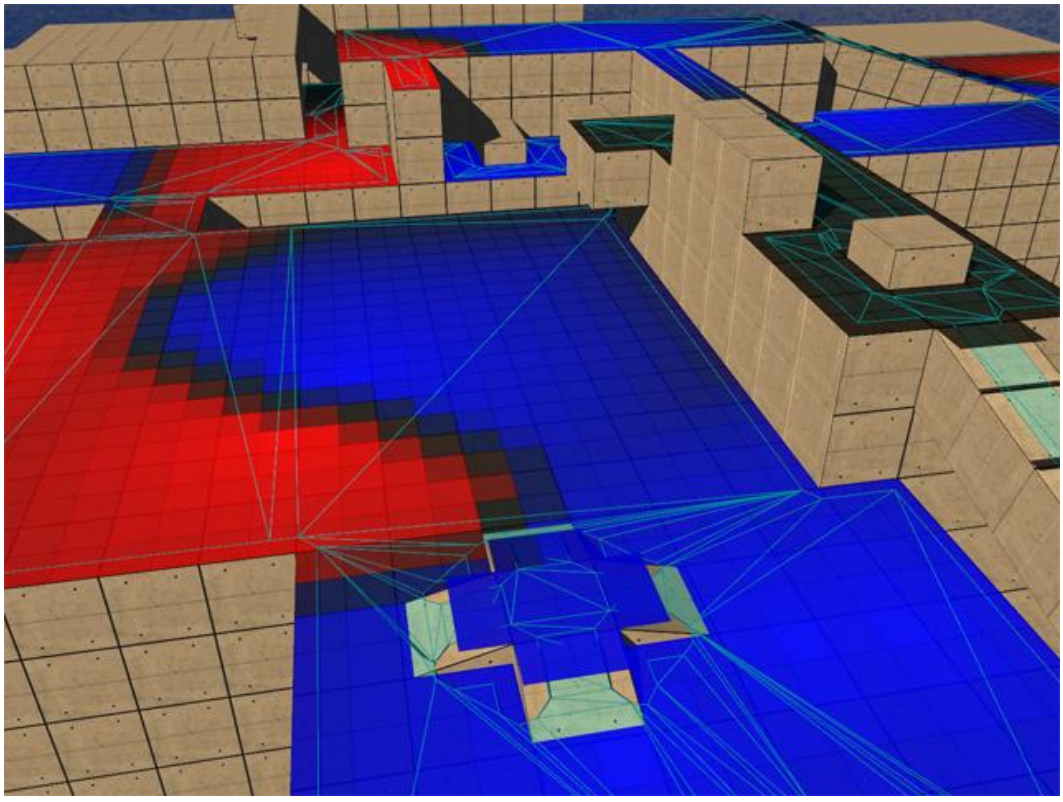
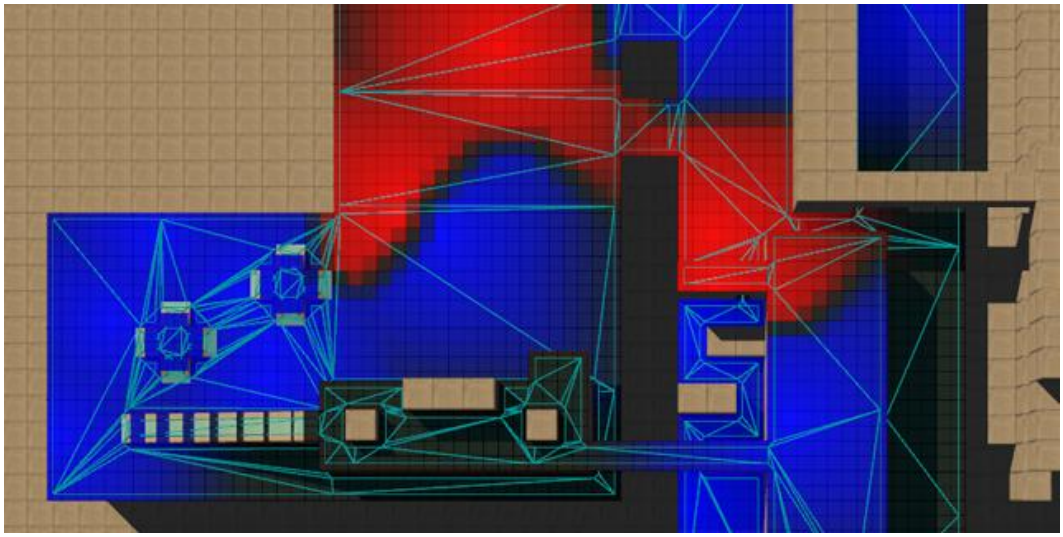
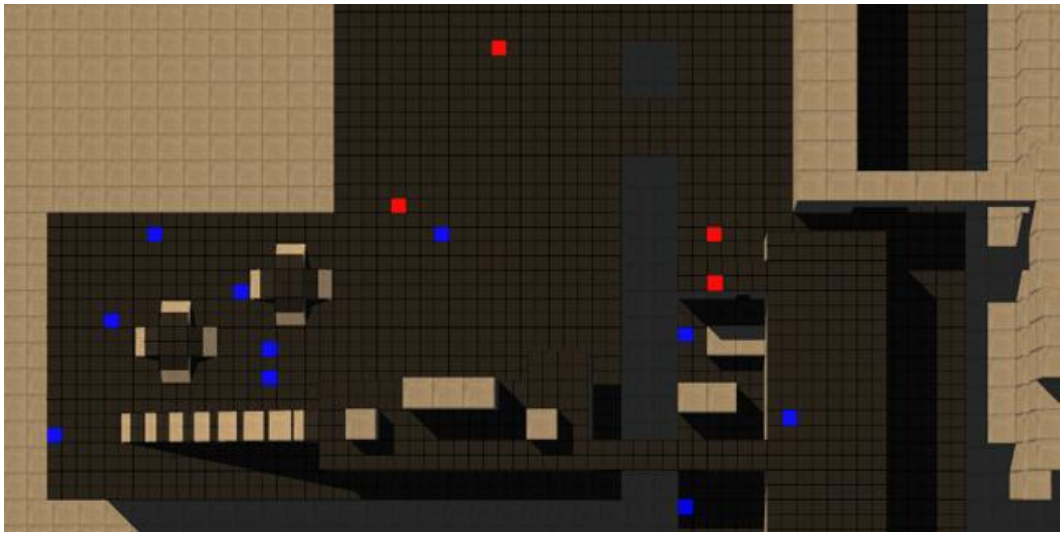
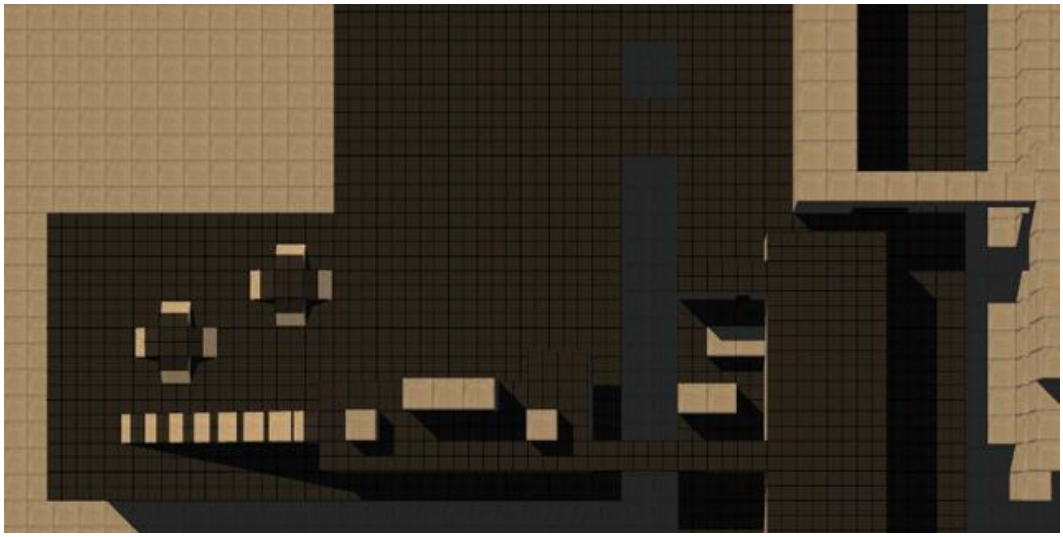
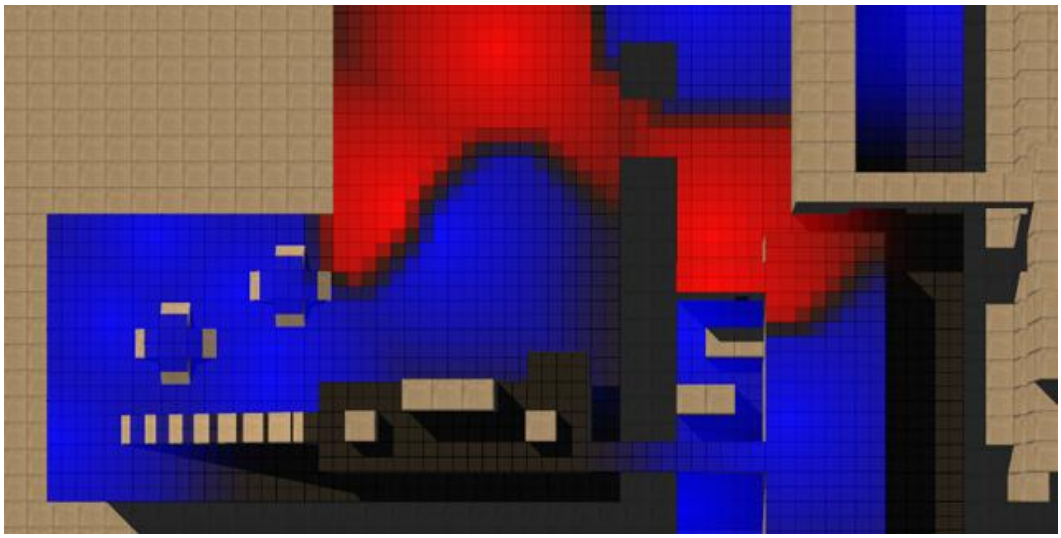
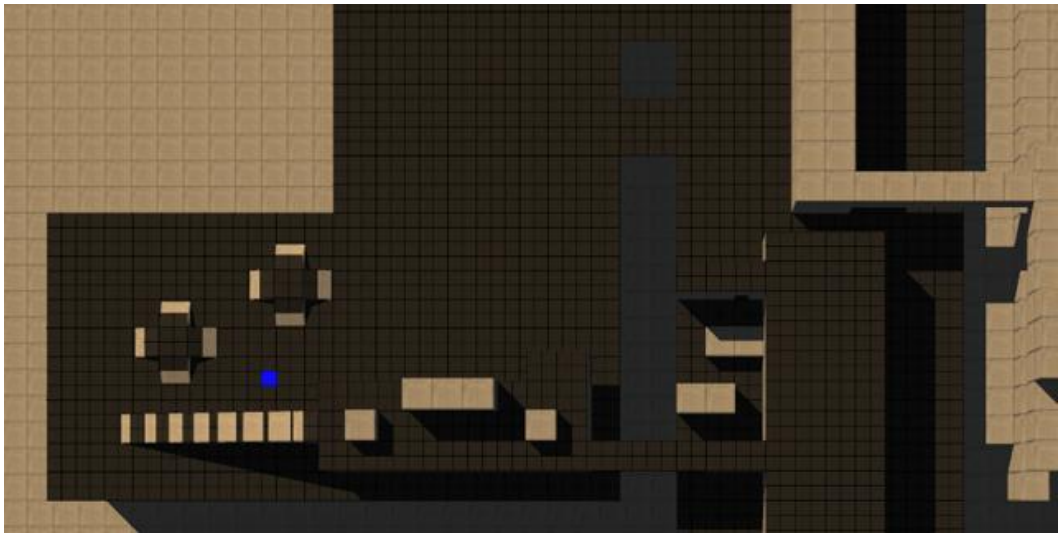
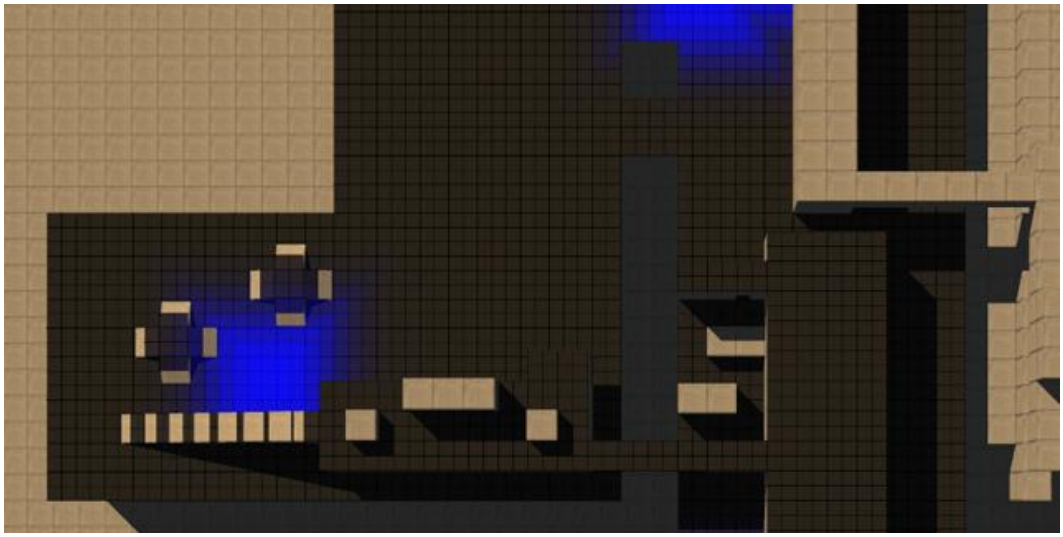
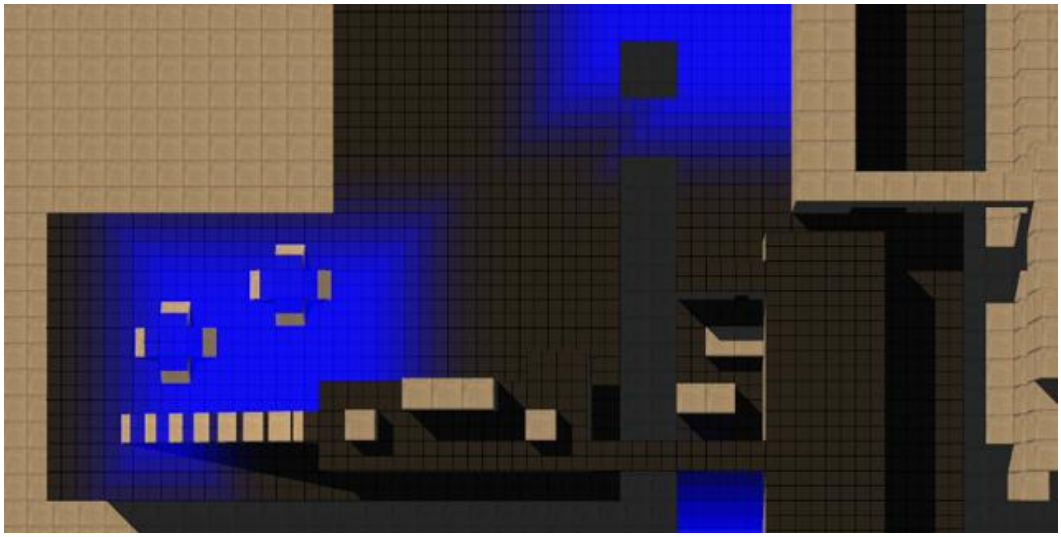
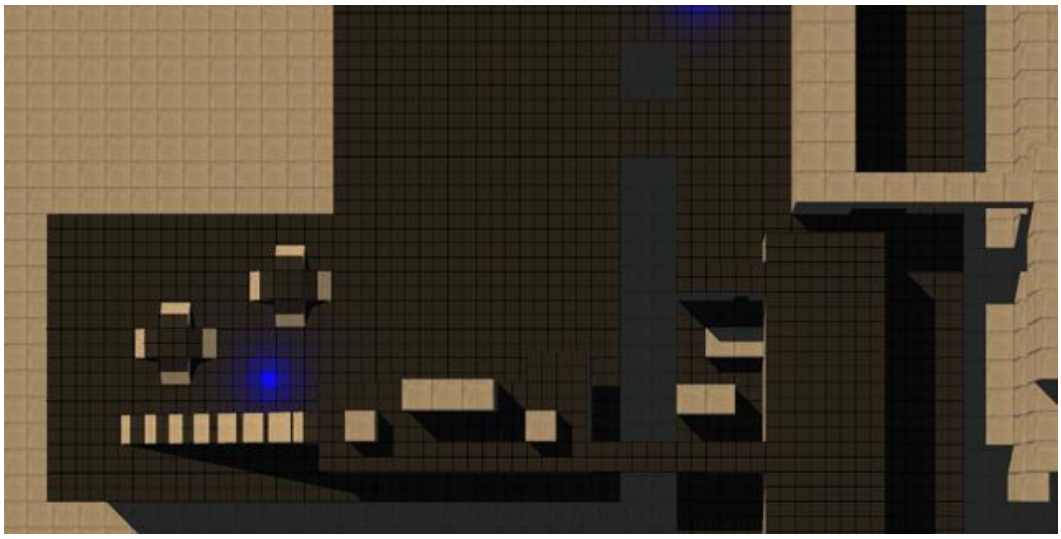
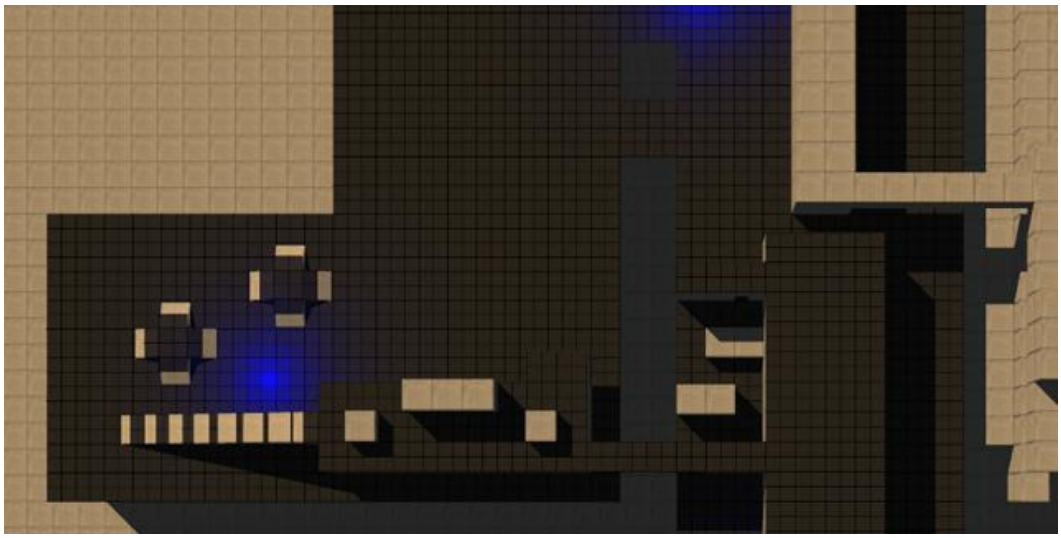
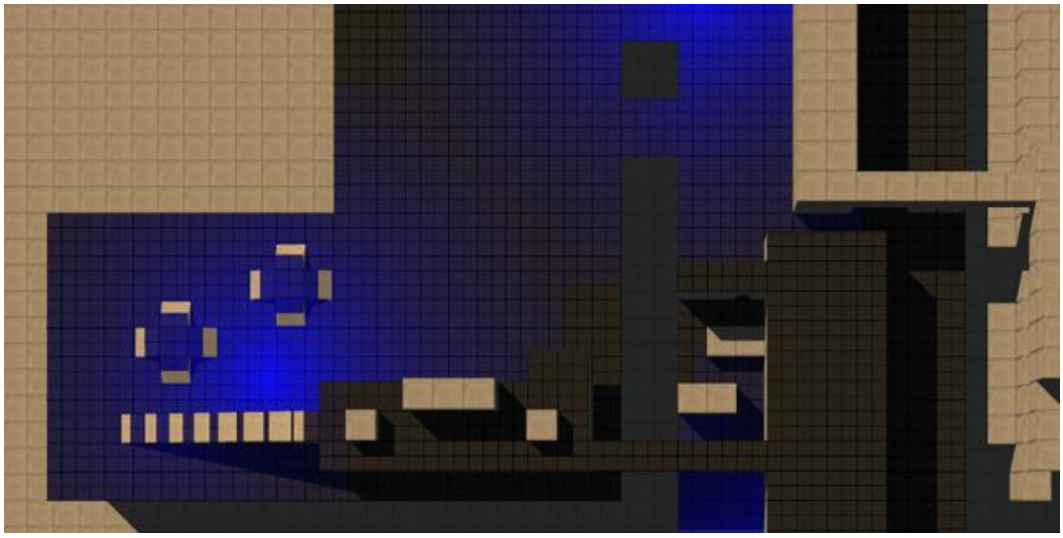
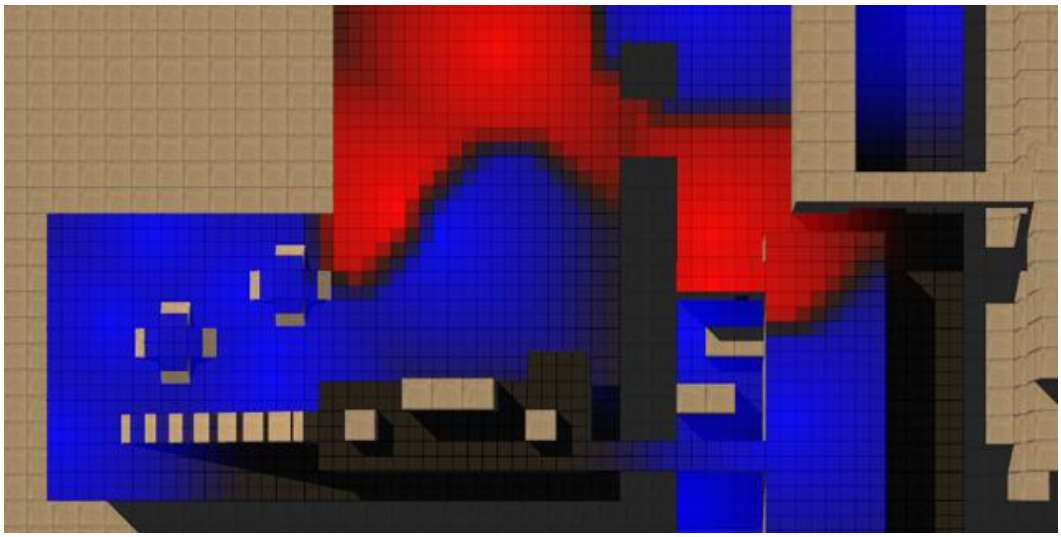
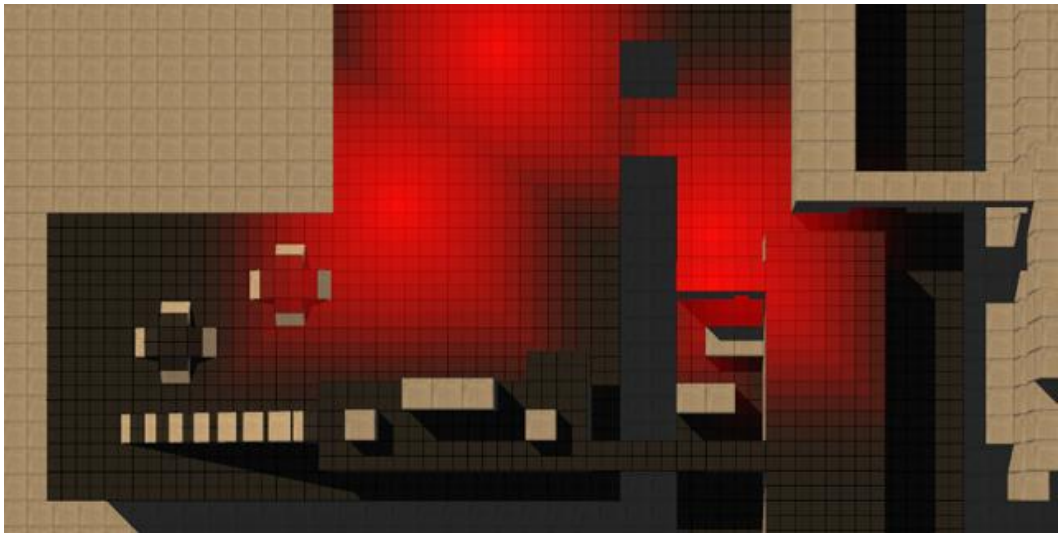
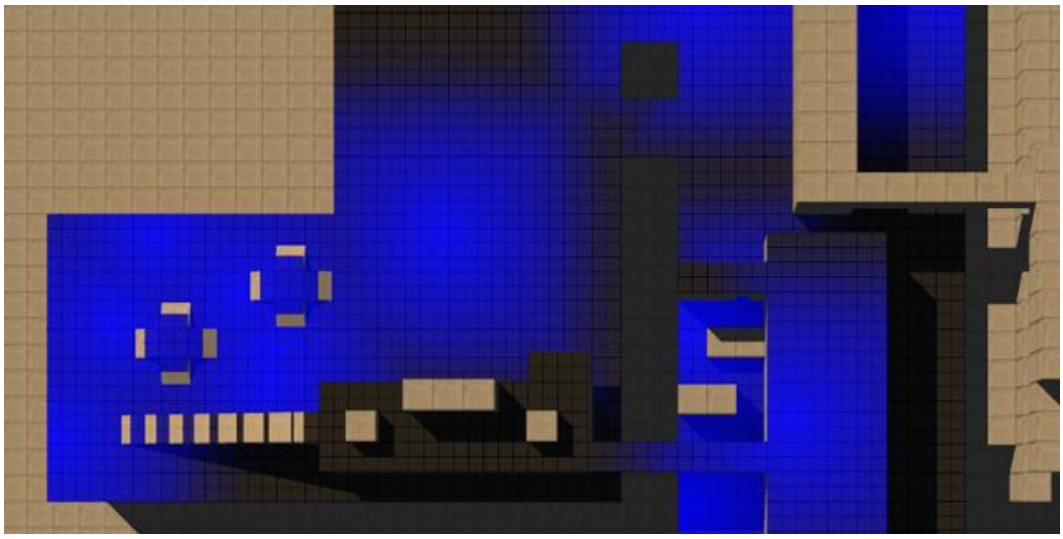
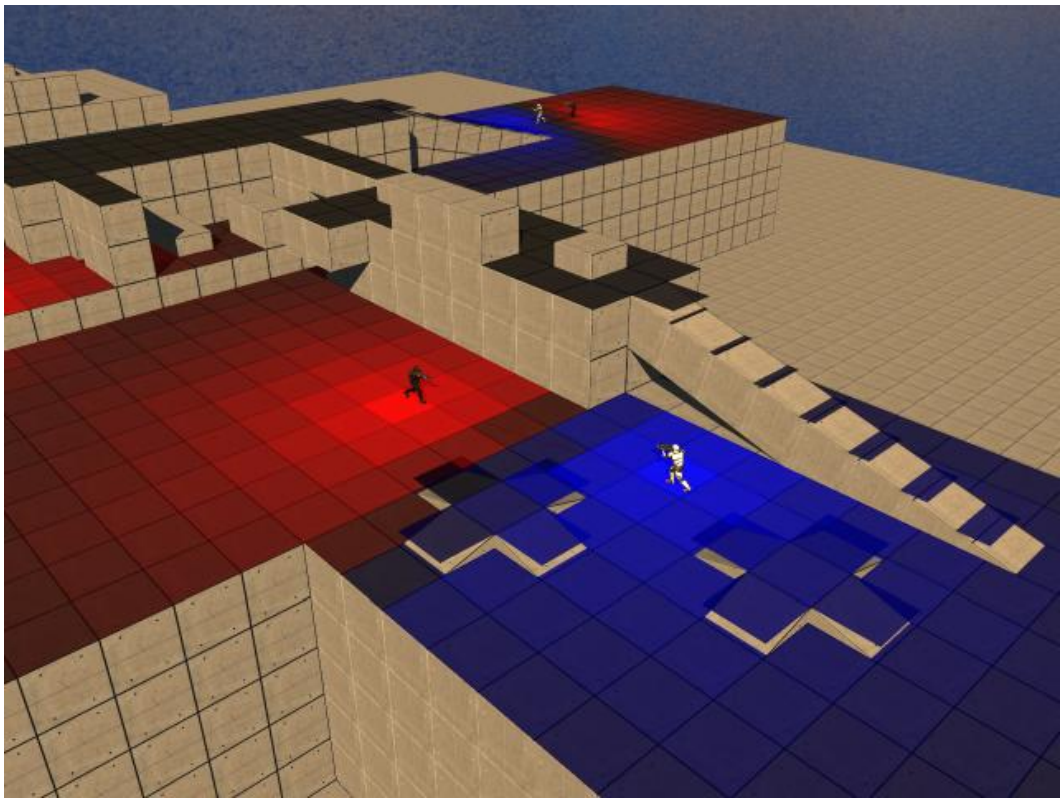
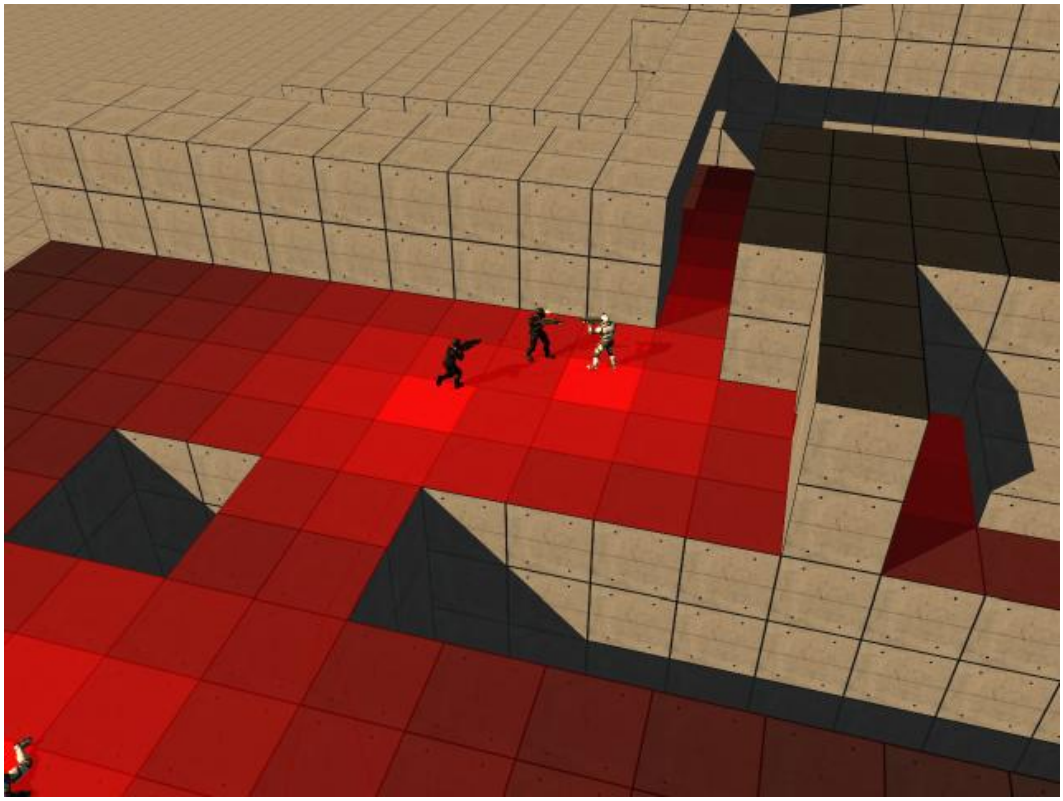

pursue
is not alive
has critical health
can shoot enemy
has no enemy
die
flee
shoot
idle


reload
is not alive
can shoot enemy
has enemy
50/50 chance
has no enemy
die
shoot
pursue
random move
idle


selector
sequence
is not alive
die
sequence
has critical health
flee
sequence
has enemy
selector
sequence
has no ammo
reload
sequence
can shoot enemy
shoot
pursue
sequence
has move position
move to position
sequence
50/50 chance
random move
idle

Chapter 8: Perception





Chapter 9: Tactics