
Subject: Lua V5 (0.5.0) Released

Posted by [jnz](#) on Sun, 16 Aug 2009 22:25:24 GMT

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At long last, after countless hours. It is finally here.

First of all, for anyone who have not followed the LuaPlugin. This is a plugin for SSGM, built on scripts 3.4.4 to integrate a Lua interpreter. There are over 300 of the API functions bound to Lua and many many hooks.

If you are interested in learning Lua, I can provide some very good links.

<http://www.lua.org/pil/> - a good tutorial detailing almost everything you need to know

<http://lua-users.org/wiki/TutorialDirectory> - a good reference

Now, on to what's new.

I have upgraded the functions calls. The LuaPlugin will no longer ignore function calls with incorrect parameters. It instead throws an error.

I have upgraded the code that handles sockets.

I have also changed the way Vector3 works. It is now a table instead. The details are in the changelog.

Full changelog: (Please read this for vital changes which will affect your old Lua code.)

11 July 2009

Started changes log

Added support for new hooks

function Serial_Hook(PlayerId, Serial)

Called when the player's client sends his serial hash (must be requested)

function Loading_Hook(PlayerId, Loading)

Called when a player is loading a map, and then when the player is ready.

Not called when the player first joins the game

function Damage_Hook(PlayerId, Damager, Target, Damage, Warhead)

Called when a player does damage,
works on everything except buildings

function Ping_Hook(PlayerId, Ping)

This is called whenever the client sends a "ping" to the server

Ping is the unique number they have sent.

function Suicide_Hook(PlayerId)

This is called when a player pressed the "suicide" button.

function Radio_Hook(Team, PlayerId, a, Radioid, b)

This is called for radio commands players can send to their team.

The OnChat function has been changed
function OnChat(int PlayerId, int Type, Message, Target)
The new parameter target is for private messaging.

Some new hooks can also be blocked
You simply add "return 0" to stop execution and block
For example
function OnChat(PlayerId, Type, Message, Target)
if Muted[PlayerId] == 1 then --this player is not permitted to use chat
return 0
end
end

The full list of function available to block are:
Damage_Hook
OnChat
Suicide_Hook
Radio_Hook

Added a new function RequestSerial(PlayerId)
This requests the player's client to send his serial
When the serial is sent the Serial_Hook is called

Updated ExamplePlugin.Lua to reflect changes to Hooks

12 July 2009
Fixed small bug where the blockable hooks would always block.

Added support for sqlite3
Using it couldn't be any more simple
Define a callback function:
function sqlite_cb(userdata, argc, data, name)
argc is the total amount of columns
data contains the cell data for each column
name contains the call name for each column
data and name are both arrays so you can iterate through them with
for k,v in pairs(data) do
io.write(v .. " - " .. name[k])
end

The callback function is called for each row of the result

To open a database file, just load the class 'sqlite'
local db = sqlite("mydb.db")

To query the database, use `db:Query("data", "callback", query)`
`db:Query("userdata", "sqlite_cb", "SELECT * FROM mytable;")`

Fixed bug preventing `OnCharacterPurchase`, `OnVehiclePurchase` and `OnPowerupPurchase` being called

Fixed a crash bug when `Get_Translated_String` was called with a valid preset.

Changed `Get_Translated_String`, it now needs 2 arguments.

`Get_Translated_String(Team, PresetId)`

Added `Get_Health`

Added `Get_Max_Health`

Added `Get_Shield_Strength`

Added `Get_Max_Shield_Strength`

25 July 2009

Fixed a bug where the server would crash when something other than a string was passed to a function expecting a string.

Added `LongToIP`, this function takes a number and returns an IP address. For example:

`a1,a2,a3,a4 = LongToIP(1234567)`

Added `IPToLong`, this function takes 4 parameters and returns a string.

Added `Is_A_Star`, this takes a gameobject and returns true or false.

27 July 2009

Made a slight change to all the Lua function bindings, they no longer ignore calls that are not made with the correct amount of arguments.

Instead, they now throw an error.

29 July 2009

Added `Enable_Stealth(Object, Stealth)`

Object is the object to effect

Stealth is either 1 or 0, 1 enables and 0 disables.

05 August 2009

Added new hook `OnError(Error)`

This hook is called whenever there is an unhandled error in Lua

It is not called across all LuaPlugins loaded, only for the LuaPlugin with the error.

This hook is also available in LuaScripts.

Updated example script and plugins with the new `OnError` call.

07 August 2009

Added `Get_Rotation()`

This gets all the maps in rotation
Returns a table

Removed SLNode and all associated classes.

Added Get_All_Objects
Returns a table with all objects in-game.

Added Get_All_Players
Returns a table with all players in-game.

Added Get_All_Vehicles
Returns a table with all vehicles in-game.

Added Get_Buildings
Returns a table with all buildings in-game.

08 August 2009

Display_Nod_Player_Terminal_Player(GameObject)
Displays a Nod purchase terminal for GameObject, must be a player

Display_GDI_Player_Terminal_Player(GameObject)
Displays a GDI purchase terminal for GameObject, must be a player

Added Reload_All_Plugins()
Reloads all plugins.

09 August 2009

Added Set_Health(GameObject, Amount)
Sets the object's health

Added Set_Shield_Strength(GameObject, Amount)
Sets the object's shield strength

Changed the way a Vector3 works. It is now a simple Lua table.
local pos = {X = 10, Y = 40, Z = 20}

--OR

```
local pos = {}  
pos.X = 10  
pos.Y = 40  
pos.Z = 20
```

Added events Load and Unload
Updated example plugin to reflect this.

Major change to LuaScripts.

I have now completely dropped the folder "LuaScripts".

To create a lua script you now first create a table like so:

```
myscript = {}
```

Then add your callbacks like so:

```
function myscript:Created(ID, o)
  print("CREATED")
  Start_Timer(ID, o, 10, 0)
end
```

```
function myscript:Timer_Expired(ID, o, num)
  print("TIMER_EXPIRED")
end
```

Simply register by using Register_Script
Register_Script("myscript", "", myscript)

Now you're ok to attach it:

```
local o = Create_Object("Invisible_Object", {X = 0, Y = 0, Z = 0})
Attach_Script_Once(o, "myscript", "")
```

Updated Example plugin to reflect new changes.

13 August 2009

Added basic remote server uploading capabilities.

With 3 functions:

Upload

Starts an upload

Consult the example code to see what parameters it needs.

Check_Upload

Returns 0 - 5

Consult the example code to see what the numbers mean.

Check_Upload_Error

Gets the system error (if any) from the last upload attempt.

Sample code:

```
local t = {}
t.Host = "ftp.myhost.co.uk"
t.Port = 21
t.Username = "joebloggs"
t.Password = "amazingpassword"
t.RemoteFile = "/foo/bar/test.txt"
t.LocalFile = "C:\\test.txt"
```

Upload(t)

```
local check = Check_Upload()
if check == 1 then
  --upload still in progress
elseif check == 2 then
  --Failed, most likly the computer doesn't support uploading
  local error = Check_Upload_Error() -- for the system error code
elseif check == 3 then
  --Failed, most likely unable to connect
  local error = Check_Upload_Error() --for the system error code
elseif check == 4 then
  --Failed, most likely the local file was not found, or the remote file could not be accessed
  local error = Check_Upload_Error() --for the system error code
elseif check == 5 then
  --Upload complete
end
```

14 August 2009

Fixed Create_Script_Zone

It now needs 3 arguments

It no longer uses the BoxClass

--This creates a script zone with preset "Script_Zone_All"

--At (1 , 2, 5)

--It is a 5x5x5 box

local Center = {X = 1, Y = 2, Z = 5}

local Extent = {X = 5, Y = 5, Z = 5}

Zone = Create_Script_Zone("Script_Zone_All", Center, Extent)

15 August 2009

Added cPlayer(PlayerID)

This builds a new table and returns it.

The table holds:

AlliesKilled

ArmHit

ArmShots

BuildingDestroyed

ClientUpdateFrequency

CreationTime

CreditGrant

CrotchHit

CrotchShots

DamageScaleFactor

Deaths

EnemiesKilled

FinalHealth
Fps
GameTime
HeadHit
HeadShots
IpAddress
IsActive
IsHuman
IsInGame
IsWaitingForIntermission
JoinTime
Kills
KillsFromVehicle
LastDamaged
LastDamager
LegHit
LegShots
Money
Ping
PlayerId
PlayerName
PlayerType
PowerupsCollected
Rung
Score
SessionTime
ShotsFired
Squishes
TorsoHit
TorsoShots
TotalTime
VehiclesDestroyed
VehicleTime

Added The_Game

This builds a new table and returns it.

The table holds:

IntermissionTimeLeft
IsAutoRestart
Port
IsPassworded
MapNumber
TimeLimit_Minutes
MinQualifyingTime_Minutes
IsTeamChangingAllowed:
Owner
FrameCount
Password

TimeRemaining_Seconds
WinnerID
GameStartTime
GameDuration_Seconds
WinType
UseLagReduction
StringVersionsMatch
SpawnWeapons
INI
IsQuickMatch
RemixTeams
RadarMode
MVPName
MaxWorldDistance
MVPCount
IsLaddered
IntermissionTime_Seconds
IsFriendlyFirePermitted
IsDedicated
GameplayPermitted
DoMapsLoop
MapCycleOver
Motd
ModName
GameTitle
CFGModTime
DriverIsAlwaysGunner
MaxPlayers
CanRepairBuildings
MapName
CurrentPlayers
IsClanGame
GrantWeapons
SettingsDescription
IP

Added Set_cPlayer(PlayerId, table)

Using any combination of the returned keys from cPlayer,
You can set a player's cPlayer information.

Added Set_The_Game(table)

Using any combination of the returned keys from The_Game,
You can set the game information.

16 August 2009

Added MemoryWrite(Address, Table)

Do not use this function unless you know exactly what you are doing.

This function writes code directly into Renegade's memory space
The table is the op-codes to be written at Address
Warning: This function can cause the server to crash

Added MemoryRead(Address, Amount)

Do not using this function unless you know exactly what you are doing.
This function reads code directly from Renegade's memory space
It returns a table with the op-codes read from Address
Warning: This function can cause the server to crash

Added Set_Shield_Type(Object, Type)

Sets the shield type of Object.

EDIT: Please see the official release topic for any critical updates.

<http://www.dcomproductions.com/forums/viewtopic.php?f=14&t=1594&p=12635>

Subject: Re: Lua V5 (0.5.0) Released

Posted by [reborn](#) on Mon, 17 Aug 2009 07:12:03 GMT

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Such a great release. This really does provide a brilliant platform for people to go and create there own mods. By far one of the best plug-in's released. Nice one!
