Subject: Lua decompiler?
Posted by asmcint on Sun, 15 Sep 2013 01:32:58 GMT
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So, I tried to tinker around with some of the .lua files... But then I remembered my freeware hex editor sucks ass, and I'm not any good with Hex in the first place. I have some small measure of competence with Lua, but I have no means of reading the files IN Lua. So... Is there any good decompiler or similar program that will allow me to view quest scripts and the like in plaintext?

Subject: Re: Lua decompiler?
Posted by Artofeel on Sun, 15 Sep 2013 05:24:00 GMT
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there is no working decompiler yet
but we have disassembler
you need lua 5
lua.exe ChunkSpy_kvm.lua "scripts\ai\aisetupscript.lua" -o "scripts\ai\aisetupscript.txt"

Subject: Re: Lua decompiler?
Posted by Keshire on Sun, 15 Sep 2013 12:58:16 GMT
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Ya a decompiler is problematic. This isn't vanilla LUA we're dealing with (Surpise surprise). It's primarily KoreVM with a bunch of other plugins added into it. Like LUA++ and Pluto.

We have a disassembler, but there's still a few quirks that need to be ironed out before someone can take that and turn it into a decompiler. Plus we need someone that's capable of that. And even if I had that skillset I'm really busy with work.

Subject: Re: Lua decompiler?
Posted by asmcint on Sun, 15 Sep 2013 14:59:21 GMT
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Welp, thanks anyway, then. I guess I'll just have to either wait, or figure out what the fuck I'm doing with a hex editor.

Subject: Re: Lua decompiler?
Posted by Artofeel on Sun, 15 Sep 2013 18:56:52 GMT
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Keshire
Can I post some of the decompiled scripts? Just for modding and for examples.

I'm not sure because of rule number 4
Quote:Posting of original game files is strictly prohibited.
they certainly original, but re-written by my hands, so...
basically I decompiled scripts without functions, they are quite simple (if not consider a lot of copy-paste operation)
functions just starts my brain to blow up
btw, can you help me with two of them?

first
ai\combatstyles\uniquecombatstyles.lua

```
0450  0000000C          [0268] getglobal      0   0        ; CombatStyles
0454  00500086          [0269] getfield_r1    0   0   80   ; Dog
0458  01000078          [0270] closure        1   0        ; 0 upvalues
045C  0001BE1E          [0271] setfield       0   95  1    ; TargetScoringFunction



6DA6                ** function [0] definition (level 2)
                    ** start of function **
                    source name: (none)
6DAA  E3000000          line defined (227)
6DAE  FA000000          last line defined (250)
6DB2  00              nups (0)
6DB3  02              numparams (2)
6DB4  00              is_vararg (0)
6DB5  08              maxstacksize (8)
                    * code:
6DB6  25000000          sizecode (37)
6DBA  02000032          [01] loadk          2   0        ; 1
6DBE  0301000C          [02] getglobal      3   1        ; Dog
6DC2  03020686          [03] getfield_r1    3   3   2    ; GetMaster
6DC6  04030000          [04] getfield       4   0   3    ; Combatant
6DCA  03020404          [05] call_i         3   2   2
6DCE  04040710          [06] self           4   3   260  ; "IsAlive"
6DD2  0402047E          [07] call_i_r1      4   2   2
6DD6  04000002          [08] test           4       0    ; to [10] if true
6DDA  00120039          [09] jmp            19           ; to [29]
6DDE  0405000C          [10] getglobal      4   5        ; Carrying
6DE2  04060886          [11] getfield_r1    4   4   6    ; IsCarryingRangedWeapon
6DE6  0500060E          [12] move           5   3
6DEA  04020404          [13] call_i         4   2   2
6DEE  0500001A          [14] loadbool       5   0   0    ; false
6DF2  0605000C          [15] getglobal      6   5        ; Carrying
6DF6  06070C86          [16] getfield_r1    6   6   7    ; IsAvailable
6DFA  0700020E          [17] move           7   1
6DFE  06020404          [18] call_i         6   2   2
6E02  06000002          [19] test           6       0    ; to [21] if true
```

```
6E06  00040039          [20] jmp           5          ; to [26]
6E0A  0605000C          [21] getglobal     6   5      ; Carrying
6E0E  06060C86          [22] getfield_r1   6   6   6  ; IsCarryingRangedWeapon
6E12  0700020E          [23] move          7   1
6E16  06020404          [24] call_i        6   2   2
6E1A  05000C0E          [25] move          5   6
6E1E  01050808          [26] eq            1   4   5  ; to [28] if false
6E22  00000039          [27] jmp           1          ; to [29]
6E26  0208054C          [28] mul           2   2   264  ; 5
6E2A  0409000C          [29] getglobal     4   9      ; GUI
6E2E  040A0886          [30] getfield_r1   4   4   10  ; IsEntityOnScreen
6E32  0500020E          [31] move          5   1
6E36  04020404          [32] call_i        4   2   2
6E3A  04000002          [33] test          4      0   ; to [35] if true
6E3E  00000039          [34] jmp           1          ; to [36]
6E42  020B054C          [35] mul           2   2   267  ; 3
6E46  02000412          [36] return        2   2
6E4A  00000212          [37] return        0   1
                  * constants:
6E4E  0C000000          sizek (12)
6E52  03                const type 3
6E53  0000803F          const [0]: (1)
6E57  04                const type 4
                  const [1]: "Dog"
6E60  04                const type 4
                  const [2]: "GetMaster"
6E6F  04                const type 4
                  const [3]: "Combatant"
6E7E  04                const type 4
                  const [4]: "IsAlive"
6E8B  04                const type 4
                  const [5]: "Carrying"
6E99  04                const type 4
                  const [6]: "IsCarryingRangedWeapon"
6EB5  04                const type 4
                  const [7]: "IsAvailable"
6EC6  03                const type 3
6EC7  0000A040          const [8]: (5)
6ECB  04                const type 4
                  const [9]: "GUI"
6ED4  04                const type 4
                  const [10]: "IsEntityOnScreen"
6EEA  03                const type 3
6EEB  00004040          const [11]: (3)
                  * functions:
6EEF  00000000          sizep (0)
                  * lines:
6EF3  00000000          sizelineinfo (0)
```

```
                [pc] (line)
                * locals:
6EF7  00000000          sizelocvars (0)
                * upvalues:
6EFB  00000000          sizeupvalues (0)
                ** end of function **
```

and second (not sure if that script used at all)
ai\combatstyles\fable2legacycombatstyles.lua

```
368C  02040620          [3483] settable_s     2   3   4
3690  03790132          [3484] loadk          3   377     ; "MoveFunction"
3694  0400000C          [3485] getglobal      4   0       ; CombatStyles
3698  05680132          [3486] loadk          5   360     ; "LuciensSoldier"
369C  04050814          [3487] gettable_s     4   4   5
36A0  05790132          [3488] loadk          5   377     ; "MoveFunction"
36A4  04050814          [3489] gettable_s     4   4   5
...
3620  0000000C          [3456] getglobal      0   0       ; CombatStyles
3624  01680132          [3457] loadk          1   360     ; "LuciensSoldier"
3628  00010014          [3458] gettable_s     0   0   1
362C  01790132          [3459] loadk          1   377     ; "MoveFunction"
3630  02000078          [3460] closure        2   0       ; 0 upvalues
3634  00020220          [3461] settable_s     0   1   2


6393                ** function [0] definition (level 2)
                ** start of function **
                source name: (none)
6397  240B0000          line defined (2852)
639B  420B0000          last line defined (2882)
639F  00              nups (0)
63A0  03              numparams (3)
63A1  00              is_vararg (0)
63A2  08              maxstacksize (8)
                * code:
63A3  30000000          sizecode (48)
63A7  0302005C          [01] newtable       3   0   2    ; array=0, hash=2
63AB  0401000C          [02] getglobal      4   1        ; ENavigationSpeed
63AF  04020886          [03] getfield_r1    4   4   2    ; NAV_SPEED_SPRINT
63B3  0304001E          [04] setfield       3   0   4    ; speed
63B7  0304071E          [05] setfield       3   3   260  ; reset_constraints false
63BB  02000002          [06] test           2       0    ; to [8] if true
63BF  00050039          [07] jmp            6            ; to [14]
63C3  04050110          [08] self           4   0   261  ; "SetNavigationConstraints"
63C7  0601005C          [09] newtable       6   0   1    ; array=0, hash=1
63CB  07070000          [10] getfield       7   0   7    ; Target
```

```
63CF  06070C1E          [11] setfield      6   6   7    ; destination_target_entity
63D3  04010604          [12] call_i        4   3   1
63D7  00000039          [13] jmp           1           ; to [15]
63DB  0308071E          [14] setfield      3   3   264  ; reset_constraints true
63DF  04090000          [15] getfield      4   0   9    ; CombatInfo
63E3  040A0886          [16] getfield_r1   4   4   10   ; Zone
63E7  04000082          [17] test_r1       4   0   0
63EB  00080039          [18] jmp           9           ; to [28]
63EF  04090000          [19] getfield      4   0   9    ; CombatInfo
63F3  040A0886          [20] getfield_r1   4   4   10   ; Zone
63F7  050B000C          [21] getglobal     5   11       ; CombatZones
63FB  050C0A86          [22] getfield_r1   5   5   12   ; None
63FF  01050808          [23] eq            1   4   5    ; to [25] if false
6403  00020039          [24] jmp           3           ; to [28]
6407  0401000C          [25] getglobal     4   1        ; ENavigationSpeed
640B  040D0886          [26] getfield_r1   4   4   13   ; NAV_SPEED_WALK
640F  0304001E          [27] setfield      3   0   4    ; speed
6413  040E0110          [28] self          4   0   270  ; "MoveToPositionNoWait"
6417  0600020E          [29] move          6   1
641B  0700060E          [30] move          7   3
641F  04020804          [31] call_i        4   4   2
6423  04000002          [32] test          4       0    ; to [34] if true
6427  000A0039          [33] jmp           11          ; to [45]
642B  040F000C          [34] getglobal     4   15       ; coroutine
642F  04100886          [35] getfield_r1   4   4   16   ; yield
6433  0401027E          [36] call_i_r1     4   1   1
6437  0411000C          [37] getglobal     4   17       ; Navigation
643B  04120886          [38] getfield_r1   4   4   18   ; HasFailed
643F  05130000          [39] getfield      5   0   19   ; Entity
6443  04020404          [40] call_i        4   2   2
6447  04010002          [41] test          4       1    ; to [43] if false
644B  00010039          [42] jmp           2           ; to [45]
644F  0400021A          [43] loadbool      4   1   0    ; true
6453  04000412          [44] return        4   2
6457  0001281E          [45] setfield      0   20  1    ; NavFailPos
645B  0400001A          [46] loadbool      4   0   0    ; false
645F  04000412          [47] return        4   2
6463  00000212          [48] return        0   1
                  * constants:
6467  15000000            sizek (21)
646B  04                  const type 4
                  const [0]: "speed"
6476  04                  const type 4
                  const [1]: "ENavigationSpeed"
648C  04                  const type 4
                  const [2]: "NAV_SPEED_SPRINT"
64A2  04                  const type 4
                  const [3]: "reset_constraints"
```

```
64B9  01              const type 1
64BA  00              const [4]: (false)
64BB  04              const type 4
                    const [5]: "SetNavigationConstraints"
64D9  04              const type 4
                    const [6]: "destination_target_entity"
64F8  04              const type 4
                    const [7]: "Target"
6504  01              const type 1
6505  01              const [8]: (true)
6506  04              const type 4
                    const [9]: "CombatInfo"
6516  04              const type 4
                    const [10]: "Zone"
6520  04              const type 4
                    const [11]: "CombatZones"
6531  04              const type 4
                    const [12]: "None"
653B  04              const type 4
                    const [13]: "NAV_SPEED_WALK"
654F  04              const type 4
                    const [14]: "MoveToPositionNoWait"
6569  04              const type 4
                    const [15]: "coroutine"
6578  04              const type 4
                    const [16]: "yield"
6583  04              const type 4
                    const [17]: "Navigation"
6593  04              const type 4
                    const [18]: "HasFailed"
65A2  04              const type 4
                    const [19]: "Entity"
65AE  04              const type 4
                    const [20]: "NavFailPos"
                    * functions:
65BE  00000000          sizep (0)
                    * lines:
65C2  00000000          sizelineinfo (0)
                    [pc] (line)
                    * locals:
65C6  00000000          sizelocvars (0)
                    * upvalues:
65CA  00000000          sizeupvalues (0)
                    ** end of function **
```

Subject: Re: Lua decompiler?
Posted by asmcint on Sun, 15 Sep 2013 20:09:11 GMT
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Quote:and second (not sure if that script used at all)
ai\combatstyles\fable2legacycombatstyles.lua

Pretty sure some of them are still used by Fable III enemies, but not all of them.

EDIT: Also, since there is no file labeled as being combat styles for the Hero, I think it's safe to assume that the Hero's combat style falls under uniquecombatstyles.lua, which makes sense when you consider that your finishing moves are unlocked as you increase in strength and stature, and as a result every set of finishing moves that you can have is unique to each combination of stats.

Subject: Re: Lua decompiler?
Posted by Keshire on Mon, 16 Sep 2013 13:21:51 GMT
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Artofeel wrote on Sun, 15 September 2013 11:56Keshire
Can I post some of the decompiled scripts? Just for modding and for examples.
I'm not sure because of rule number 4

Have at it. chunkspy outputs are not original files.
I wouldn't even consider rewritten or decompiled scripts original files.

And editing the compiled scripts via hex editor will only take you so far. The only thing I would use it for is to circumvent the DLC checks. Anything else I'd rather just attempt to rewrite it myself. Definitely not for the faint of heart though.

There IS a fable 2 decompiler. Because it doesn't use KoreVM. It's good to take a look at the Fable 2 scripts if you have them handy because a lot of the scripts are the same between the two games. Just compiled between normal lua and koreVM lua.

http://fable2mod.com/forums/forum.php?req=thread&postid= 249

Thankfully, Fable 3 doesn't have a problem with plaintext uncompiled LUA. Otherwise we'd really be screwed.

Subject: Re: Lua decompiler?
Posted by asmcint on Mon, 16 Sep 2013 14:27:24 GMT
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Yep. We're also kinda lucky that they actually put plaintext, uncompiled lua in copies of certain files. Like scriptactivation.lua.

Subject: Re: Lua decompiler?
Posted by Artofeel on Mon, 16 Sep 2013 16:52:04 GMT
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Keshire wrote on Mon, 16 September 2013 19:21I wouldn't even consider rewritten or decompiled scripts original files.
Then here they are

Subject: Re: Lua decompiler?
Posted by Keshire on Mon, 16 Sep 2013 21:41:42 GMT
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```
0450  0000000C          [0268] getglobal      0   0        ; CombatStyles
0454  00500086          [0269] getfield_r1    0   0   80   ; Dog
0458  01000078          [0270] closure        1   0        ; 0 upvalues
045C  0001BE1E          [0271] setfield       0   95  1    ; TargetScoringFunction
```

Should be CombatStyles.Dog:TargetScoringFunction() I think.

Which matches this that I know is right

```
000662  0016000C          [376] getglobal      0   22       ; Gameflow
000666  00230086          [377] getfield_r1    0   0   35   ; RoadToRule
00066A  01590078          [378] closure        1   89       ; 0 upvalues
00066E  0001D61E          [379] setfield       0   107 1    ; UNLOCK_ALL_GATES
```

Gameflow.RoadToRule:UNLOCK_ALL_GATES()

Subject: Re: Lua decompiler?
Posted by Artofeel on Tue, 17 Sep 2013 06:31:06 GMT
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Keshire wrote on Tue, 17 September 2013 03:41

```
0450  0000000C          [0268] getglobal      0   0        ; CombatStyles
0454  00500086          [0269] getfield_r1    0   0   80   ; Dog
0458  01000078          [0270] closure        1   0        ; 0 upvalues
045C  0001BE1E          [0271] setfield       0   95  1    ; TargetScoringFunction
```

Should be CombatStyles.Dog:TargetScoringFunction() I think.
not like this?
CombatStyles.Dog.TargetScoringFunction = function()

end
anyway, this is simple, function code is complicated

Subject: Re: Lua decompiler?
Posted by Keshire on Tue, 17 Sep 2013 12:20:53 GMT
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Artofeel wrote on Mon, 16 September 2013 23:31Keshire wrote on Tue, 17 September 2013 03:41
```
0450  0000000C          [0268] getglobal      0   0       ; CombatStyles
0454  00500086          [0269] getfield_r1    0   0   80   ; Dog
0458  01000078          [0270] closure        1   0       ; 0 upvalues
045C  0001BE1E          [0271] setfield       0   95  1    ; TargetScoringFunction
```

Should be CombatStyles.Dog:TargetScoringFunction() I think.
not like this?
CombatStyles.Dog.TargetScoringFunction = function()

end
anyway, this is simple, function code is complicated

Nope there is only one function is that lua. The rest is just command after command, table after table.

```
5224                    ** function [0] definition (level 2)
                    ** start of function **
                    source name:
d:\\Pulse\\work\\f3-daily-build-PC\\Deploy\\Fable2_win32\\data\\scripts\\AI\\CombatStyles\\Unique
CombatStyles.lua
524F  E3000000          line defined (227)
5253  FA000000          last line defined (250)
5257  00                nups (0)
5258  02                numparams (2)
5259  00                is_vararg (0)
525A  08                maxstacksize (8)
                    * code:
525B  25000000          sizecode (37)
525F  02000032          [01] loadk          2   0       ; 1
5263  0301000C          [02] getglobal      3   1       ; Dog
5267  03020686          [03] getfield_r1    3   3   2    ; GetMaster
526B  04030000          [04] getfield       4   0   3    ; Combatant
526F  03020404          [05] call_i         3   2   2
5273  04040710          [06] self           4   3   260  ; "IsAlive"
5277  0402047E          [07] call_i_r1      4   2   2
527B  04000002          [08] test           4       0    ; to [10] if true
527F  00120039          [09] jmp            19           ; to [29]
5283  0405000C          [10] getglobal      4   5       ; Carrying
5287  04060886          [11] getfield_r1    4   4   6    ; IsCarryingRangedWeapon
528B  0500060E          [12] move           5   3
528F  04020404          [13] call_i         4   2   2
5293  0500001A          [14] loadbool       5   0   0    ; false
5297  0605000C          [15] getglobal      6   5       ; Carrying
```

```
529B  06070C86          [16] getfield_r1    6   6   7    ; IsAvailable
529F  0700020E          [17] move           7   1
52A3  06020404          [18] call_i         6   2   2
52A7  06000002          [19] test           6       0    ; to [21] if true
52AB  00040039          [20] jmp            5            ; to [26]
52AF  0605000C          [21] getglobal      6   5        ; Carrying
52B3  06060C86          [22] getfield_r1    6   6   6    ; IsCarryingRangedWeapon
52B7  0700020E          [23] move           7   1
52BB  06020404          [24] call_i         6   2   2
52BF  05000C0E          [25] move           5   6
52C3  01050808          [26] eq             1   4   5    ; to [28] if false
52C7  00000039          [27] jmp            1            ; to [29]
52CB  0208054C          [28] mul            2   2   264  ; 5
52CF  0409000C          [29] getglobal      4   9        ; GUI
52D3  040A0886          [30] getfield_r1    4   4   10   ; IsEntityOnScreen
52D7  0500020E          [31] move           5   1
52DB  04020404          [32] call_i         4   2   2
52DF  04000002          [33] test           4       0    ; to [35] if true
52E3  00000039          [34] jmp            1            ; to [36]
52E7  020B054C          [35] mul            2   2   267  ; 3
52EB  02000412          [36] return         2   2
52EF  00000212          [37] return         0   1
                  * constants:
52F3  0C000000            sizek (12)
52F7  03                const type 3
52F8  0000803F            const [0]: (1)
52FC  04                const type 4
                  const [1]: "Dog"
5305  04                const type 4
                  const [2]: "GetMaster"
5314  04                const type 4
                  const [3]: "Combatant"
5323  04                const type 4
                  const [4]: "IsAlive"
5330  04                const type 4
                  const [5]: "Carrying"
533E  04                const type 4
                  const [6]: "IsCarryingRangedWeapon"
535A  04                const type 4
                  const [7]: "IsAvailable"
536B  03                const type 3
536C  0000A040            const [8]: (5)
5370  04                const type 4
                  const [9]: "GUI"
5379  04                const type 4
                  const [10]: "IsEntityOnScreen"
538F  03                const type 3
5390  00004040          const [11]: (3)
```

```
                * functions:
5394  00000000          sizep (0)
                * lines:
5398  25000000          sizelineinfo (37)
                [pc] (line)
539C  E4000000          [01] (228)
53A0  E5000000          [02] (229)
53A4  E5000000          [03] (229)
53A8  E5000000          [04] (229)
53AC  E5000000          [05] (229)
53B0  E8000000          [06] (232)
53B4  E8000000          [07] (232)
53B8  E8000000          [08] (232)
53BC  E8000000          [09] (232)
53C0  E9000000          [10] (233)
53C4  E9000000          [11] (233)
53C8  E9000000          [12] (233)
53CC  E9000000          [13] (233)
53D0  EA000000          [14] (234)
53D4  EB000000          [15] (235)
53D8  EB000000          [16] (235)
53DC  EB000000          [17] (235)
53E0  EB000000          [18] (235)
53E4  EB000000          [19] (235)
53E8  EB000000          [20] (235)
53EC  EC000000          [21] (236)
53F0  EC000000          [22] (236)
53F4  EC000000          [23] (236)
53F8  EC000000          [24] (236)
53FC  EC000000          [25] (236)
5400  EF000000          [26] (239)
5404  EF000000          [27] (239)
5408  F0000000          [28] (240)
540C  F5000000          [29] (245)
5410  F5000000          [30] (245)
5414  F5000000          [31] (245)
5418  F5000000          [32] (245)
541C  F5000000          [33] (245)
5420  F5000000          [34] (245)
5424  F6000000          [35] (246)
5428  F9000000          [36] (249)
542C  FA000000          [37] (250)
                * locals:
5430  06000000          sizelocvars (6)
                local [0]: attacker_info
5446  00000000            startpc (0)
544A  24000000            endpc   (36)
                local [1]: target
```

```
5459  00000000          startpc (0)
545D  24000000          endpc   (36)
                  local [2]: multiplier
5470  01000000          startpc (1)
5474  24000000          endpc   (36)
                  local [3]: master
5483  05000000          startpc (5)
5487  24000000          endpc   (36)
                  local [4]: master_ranged
549D  0D000000          startpc (13)
54A1  1C000000          endpc   (28)
                  local [5]: target_ranged
54B7  0E000000          startpc (14)
54BB  1C000000          endpc   (28)
                  * upvalues:
54BF  00000000        sizeupvalues (0)
                  ** end of function **
```

Also, if you didn't know already. The scripts in the other gamescript bank contain debug data for locals, and start/stop lines.

Subject: Re: Lua decompiler?
Posted by Artofeel on Wed, 18 Sep 2013 06:58:53 GMT
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Keshire wrote on Tue, 17 September 2013 18:20Nope there is only one function is that lua.
and it should be in place
CombatStyles.Dog.TargetScoringFunction = function()
 <<function code>>
end
or not?

Keshire wrote on Tue, 17 September 2013 18:20Also, if you didn't know already. The scripts in the other gamescript bank contain debug data for locals, and start/stop lines.
didn't know
was thinking what is different from gamescript_r and gamescript...
and the use of them? only more confusing information

Subject: Re: Lua decompiler?
Posted by Keshire on Wed, 18 Sep 2013 15:26:35 GMT
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Artofeel wrote on Tue, 17 September 2013 23:58Keshire wrote on Tue, 17 September 2013 18:20Nope there is only one function is that lua.

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didn't know
was thinking what is different from gamescript_r and gamescript...
and the use of them? only more confusing information

You're right. My bad.
It should be this:

function CombatStyles.Dog:TargetScoringFunction(attacker_info, target)

end

There "shouldn't" be a difference between the script and script_r other than one contains compiler debug information. Which is REALLY helpful as it contains line information and local variables.

Subject: Re: Lua decompiler?
Posted by Keshire on Wed, 13 Nov 2013 04:54:19 GMT
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function CombatStyles.Dog:TargetScoringFunction(attacker_info, target)

 local multiplier = 1.0
 local master = Dog.GetMaster(attacker_info.Combatant)
 if master:IsAlive() then
  local master_ranged = Carrying.IsCarryingRangedWeapon(master)
  local target_ranged = false
  if Carrying.IsAvailable(target) then
   target_ranged = Carrying.IsCarryingRangedWeapon(target)
  end
  if master_ranged ~= target_ranged then
   multiplier = multiplier * 5
  end
 end
 if GUI.IsEntityOnScreen(target) then
  multiplier = multiplier * 3
 end
 return multiplier
end

Subject: Re: Lua decompiler?
Posted by Keshire on Wed, 13 Nov 2013 05:11:00 GMT
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Artofeel wrote on Sun, 15 September 2013 11:56

and second (not sure if that script used at all)
ai\combatstyles\fable2legacycombatstyles.lua

```
368C  02040620          [3483] settable_s    2   3   4
3690  03790132          [3484] loadk         3   377     ; "MoveFunction"
3694  0400000C          [3485] getglobal     4   0       ; CombatStyles
3698  05680132          [3486] loadk         5   360     ; "LuciensSoldier"
369C  04050814          [3487] gettable_s    4   4   5
36A0  05790132          [3488] loadk         5   377     ; "MoveFunction"
36A4  04050814          [3489] gettable_s    4   4   5
...
3620  0000000C          [3456] getglobal     0   0       ; CombatStyles
3624  01680132          [3457] loadk         1   360     ; "LuciensSoldier"
3628  00010014          [3458] gettable_s    0   0   1
362C  01790132          [3459] loadk         1   377     ; "MoveFunction"
3630  02000078          [3460] closure       2   0       ; 0 upvalues
3634  00020220          [3461] settable_s    0   1   2


6393                ** function [0] definition (level 2)
                    ** start of function **
                    source name: (none)
6397  240B0000          line defined (2852)
639B  420B0000          last line defined (2882)
639F  00                nups (0)
63A0  03                numparams (3)
63A1  00                is_vararg (0)
63A2  08                maxstacksize (8)
                    * code:
63A3  30000000          sizecode (48)
63A7  0302005C          [01] newtable      3   0   2    ; array=0, hash=2
63AB  0401000C          [02] getglobal     4   1        ; ENavigationSpeed
63AF  04020886          [03] getfield_r1   4   4   2    ; NAV_SPEED_SPRINT
63B3  0304001E          [04] setfield      3   0   4    ; speed
63B7  0304071E          [05] setfield      3   3   260  ; reset_constraints false
63BB  02000002          [06] test          2       0    ; to [8] if true
63BF  00050039          [07] jmp           6            ; to [14]
63C3  04050110          [08] self          4   0   261  ; "SetNavigationConstraints"
63C7  0601005C          [09] newtable      6   0   1    ; array=0, hash=1
63CB  07070000          [10] getfield      7   0   7    ; Target
63CF  06070C1E          [11] setfield      6   6   7    ; destination_target_entity
63D3  04010604          [12] call_i        4   3   1
63D7  00000039          [13] jmp           1            ; to [15]
```

```
63DB  0308071E          [14] setfield       3   3   264  ; reset_constraints true
63DF  04090000          [15] getfield       4   0   9    ; CombatInfo
63E3  040A0886          [16] getfield_r1    4   4   10   ; Zone
63E7  04000082          [17] test_r1        4   0   0
63EB  00080039          [18] jmp            9            ; to [28]
63EF  04090000          [19] getfield       4   0   9    ; CombatInfo
63F3  040A0886          [20] getfield_r1    4   4   10   ; Zone
63F7  050B000C          [21] getglobal      5   11       ; CombatZones
63FB  050C0A86          [22] getfield_r1    5   5   12   ; None
63FF  01050808          [23] eq             1   4   5    ; to [25] if false
6403  00020039          [24] jmp            3            ; to [28]
6407  0401000C          [25] getglobal      4   1        ; ENavigationSpeed
640B  040D0886          [26] getfield_r1    4   4   13   ; NAV_SPEED_WALK
640F  0304001E          [27] setfield       3   0   4    ; speed
6413  040E0110          [28] self           4   0   270  ; "MoveToPositionNoWait"
6417  0600020E          [29] move           6   1
641B  0700060E          [30] move           7   3
641F  04020804          [31] call_i         4   4   2
6423  04000002          [32] test           4       0    ; to [34] if true
6427  000A0039          [33] jmp            11           ; to [45]
642B  040F000C          [34] getglobal      4   15       ; coroutine
642F  04100886          [35] getfield_r1    4   4   16   ; yield
6433  0401027E          [36] call_i_r1      4   1   1
6437  0411000C          [37] getglobal      4   17       ; Navigation
643B  04120886          [38] getfield_r1    4   4   18   ; HasFailed
643F  05130000          [39] getfield       5   0   19   ; Entity
6443  04020404          [40] call_i         4   2   2
6447  04010002          [41] test           4       1    ; to [43] if false
644B  00010039          [42] jmp            2            ; to [45]
644F  0400021A          [43] loadbool       4   1   0    ; true
6453  04000412          [44] return         4   2
6457  0001281E          [45] setfield       0   20  1    ; NavFailPos
645B  0400001A          [46] loadbool       4   0   0    ; false
645F  04000412          [47] return         4   2
6463  00000212          [48] return         0   1
                    * constants:
6467  15000000            sizek (21)
646B  04                  const type 4
                    const [0]: "speed"
6476  04                  const type 4
                    const [1]: "ENavigationSpeed"
648C  04                  const type 4
                    const [2]: "NAV_SPEED_SPRINT"
64A2  04                  const type 4
                    const [3]: "reset_constraints"
64B9  01                  const type 1
64BA  00                  const [4]: (false)
64BB  04                  const type 4
```

```
                const [5]: "SetNavigationConstraints"
64D9  04            const type 4
                const [6]: "destination_target_entity"
64F8  04            const type 4
                const [7]: "Target"
6504  01            const type 1
6505  01            const [8]: (true)
6506  04            const type 4
                const [9]: "CombatInfo"
6516  04            const type 4
                const [10]: "Zone"
6520  04            const type 4
                const [11]: "CombatZones"
6531  04            const type 4
                const [12]: "None"
653B  04            const type 4
                const [13]: "NAV_SPEED_WALK"
654F  04            const type 4
                const [14]: "MoveToPositionNoWait"
6569  04            const type 4
                const [15]: "coroutine"
6578  04            const type 4
                const [16]: "yield"
6583  04            const type 4
                const [17]: "Navigation"
6593  04            const type 4
                const [18]: "HasFailed"
65A2  04            const type 4
                const [19]: "Entity"
65AE  04            const type 4
                const [20]: "NavFailPos"
                * functions:
65BE  00000000      sizep (0)
                * lines:
65C2  00000000      sizelineinfo (0)
                [pc] (line)
                * locals:
65C6  00000000      sizelocvars (0)
                * upvalues:
65CA  00000000      sizeupvalues (0)
                ** end of function **
```

```
DecompiledFunction = function(self, dest_pos, face_target)
  local params = {speed = ENavigationSpeed.NAV_SPEED_SPRINT, reset_constraints = false}
  if face_target then
    self:SetNavigationConstraints({destination_target_entity = self.Target})
```

```
  else
    params.reset_constraints = true
  end
  if self.CombatInfo.Zone and self.CombatInfo.Zone ~= CombatZones.None then
    params.speed = ENavigationSpeed.NAV_SPEED_WALK
  end
  if self:MoveToPositionNoWait(dest_pos, params) then
    coroutine.yield()
    if not Navigation.HasFailed(self.Entity) then
      return true
    end
  end
  self.NavFailPos = dest_pos
  return false
end
```

Subject: Re: Lua decompiler?
Posted by Artofeel on Wed, 13 Nov 2013 14:43:14 GMT
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OSSOME
thanks!
it's loaded, but it seems to be not used at all
I place some MessageBox'es and no one is appear...
strange function
btw, works (loaded) in both ways

function CombatStyles.Dog:TargetScoringFunction(attacker_info, target)

CombatStyles.Dog.TargetScoringFunction = function(attacker_info, target)

Subject: Re: Lua decompiler?
Posted by Keshire on Wed, 13 Nov 2013 15:31:44 GMT
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Artofeel wrote on Wed, 13 November 2013 06:43OSSOME
thanks!
it's loaded, but it seems to be not used at all
I place some MessageBox'es and no one is appear...
strange function

btw, works (loaded) in both ways

function CombatStyles.Dog:TargetScoringFunction(attacker_info, target)

CombatStyles.Dog.TargetScoringFunction = function(attacker_info, target)

Ya. Both syntax give the same thing. I just base it off how lionhead has done all their other stuff for consistency sake.

I'll take a look around and see if anything is loading it. You may be right though. Plus, I'm really not sure on the syntax of the rest. The assembly for it is pretty crazy with all the table stuff going on. I'll trust you have it right though because I don't want to figure it out.

Subject: Re: Lua decompiler?
Posted by TheGeniusSavant on Fri, 18 Sep 2015 13:40:57 GMT
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Okay, I'm looking at \data\scripts\miscellaneous\carriedactionusescripts\ oncarriedactionusedig.lua

I'm trying to figure out how I would modify it to jump straight from selecting "dig" to showing your loot (skipping the friggin' stupid-long animation every time).

I ran it through KoreVM LUA decompiler (thanks to Keshire! and it spit out the table, but I'm not familiar enough (yet) with how to read it. Can someone point me to an LUA tutorial that would explain how to convert that table into functions, or at least how to read it?

I can guess at bits and pieces (such as, it's pretty easy to see when it's making a logic call and doing if-then actions... I can understand what JMP [246] means, etc.

I'll attach the decompiled code here, in case anyone has time to look at it.

File Attachments
1) oncarriedactionusedig.txt, downloaded 2480 times

Subject: Re: Lua decompiler?
Posted by TheGeniusSavant on Fri, 18 Sep 2015 14:10:47 GMT
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I feel like I ought to be able to change

```
0677  08000002          [359] test          8       0    ; to [361] if true
067B  00030039          [360] jmp           4            ; to [365]
```

to

```
0677  08000002          [359] test          8       0    ; to [361] if true
067B  00030039          [360] jmp           4            ; to [383]
```

and delete

```
068F  0848000C          [365] getglobal     8   72       ; CameraManager
0693  08491086          [366] getfield_r1   8   8   73   ; SetCannedActionCameraMode
0697  09000000          [367] getfield      9   0   0    ; EntityUsingItem
069B  0A4A000C          [368] getglobal     10  74       ; CannedActionCamera
069F  0A4B1486          [369] getfield_r1   10  10  75   ; Types
06A3  0A561486          [370] getfield_r1   10  10  86   ; CANNEDACTION_NONE
06A7  08010604          [371] call_i        8   3   1
06AB  0817000C          [372] getglobal     8   23       ; Player
06AF  08181086          [373] getfield_r1   8   8   24   ; IsAvailable
06B3  09000000          [374] getfield      9   0   0    ; EntityUsingItem
06B7  08020404          [375] call_i        8   2   2
06BB  08000002          [376] test          8       0    ; to [378] if true
06BF  00040039          [377] jmp           5            ; to [383]
```

to get it to skip the animation.

Or do I have to leave the first section alone and change subsequent line numbers to reflect their new positions? Or do I have to figure out how to turn this into plaintext LUA code that is more easily modified? (I know... so many questions, so few answers...

Subject: Re: Lua decompiler?
Posted by TheGeniusSavant on Fri, 18 Sep 2015 14:35:44 GMT
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Well... I dug a little deeper... I think this is the offending code... now to figure out how to disable it and either recompile it or rewrite it to work without...

```
039B  0606005C          [176] newtable      6   0   6    ; array=0, hash=6
039F  0738000C          [177] getglobal     7   56       ; EScriptableAction
```

```
03A3  07390E86        [178] getfield_r1    7   7   57   ; LOOP
03A7  06076E1E        [179] setfield       6   55  7    ; Type
03AB  073B000C        [180] getglobal      7   59       ; EActionPriority
03AF  073C0E86        [181] getfield_r1    7   7   60   ; PRIORITY_INTERACTION
03B3  0607741E        [182] setfield       6   58  7    ; Priority
03B7  0703005C        [183] newtable       7   0   3    ; array=0, hash=3
03BB  0838000C        [184] getglobal      8   56       ; EScriptableAction
03BF  083E1086        [185] getfield_r1    8   8   62   ; DIG
03C3  07086E1E        [186] setfield       7   55  8    ; Type
03C7  07407F1E        [187] setfield       7   63  320  ; Anim "DigInto"
03CB  07033E1E        [188] setfield       7   31  3    ; Spade
03CF  06077A1E        [189] setfield       6   61  7    ; IntoAction
03D3  0703005C        [190] newtable       7   0   3    ; array=0, hash=3
03D7  0838000C        [191] getglobal      8   56       ; EScriptableAction
03DB  083E1086        [192] getfield_r1    8   8   62   ; DIG
03DF  07086E1E        [193] setfield       7   55  8    ; Type
03E3  07427F1E        [194] setfield       7   63  322  ; Anim "DigLoop"
03E7  07033E1E        [195] setfield       7   31  3    ; Spade
03EB  0607821E        [196] setfield       6   65  7    ; LoopAction
03EF  0702005C        [197] newtable       7   0   2    ; array=0, hash=2
03F3  0838000C        [198] getglobal      8   56       ; EScriptableAction
03F7  08441086        [199] getfield_r1    8   8   68   ; PLAY_ANIMATION
03FB  07086E1E        [200] setfield       7   55  8    ; Type
03FF  07057E1E        [201] setfield       7   63  5    ; Anim
0403  0607861E        [202] setfield       6   67  7    ; OutOfAction
0407  06468B1E        [203] setfield       6   69  326  ; NumLoops 1
```