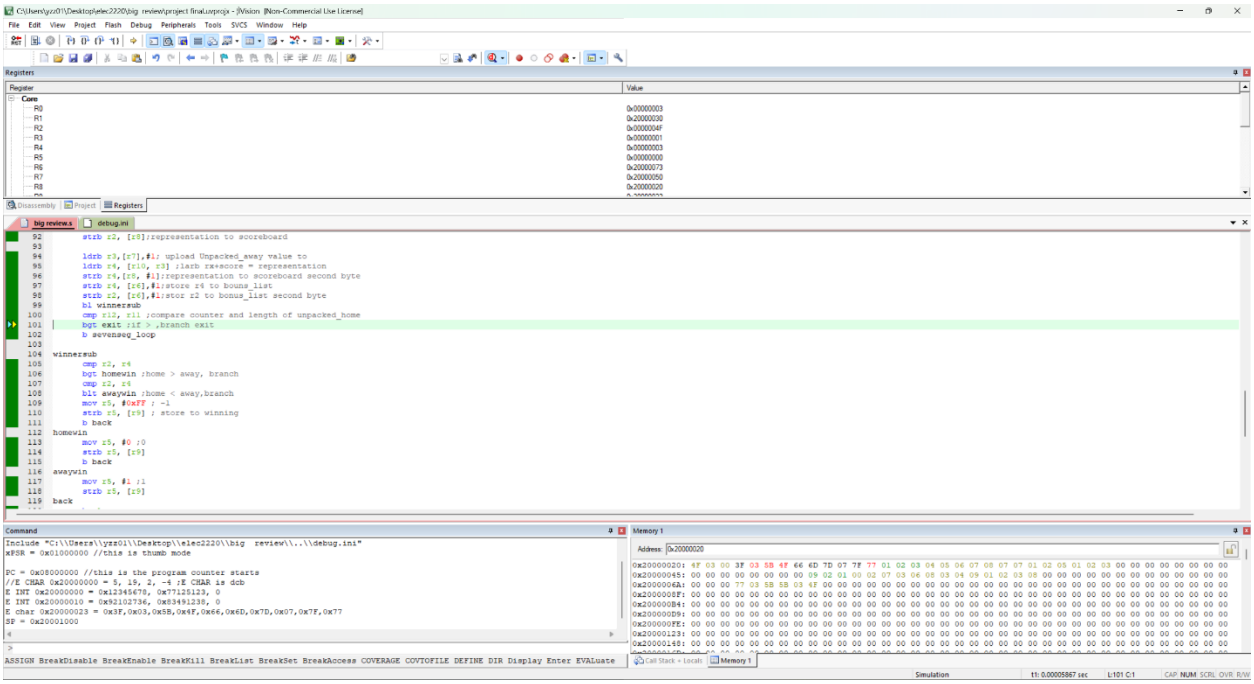
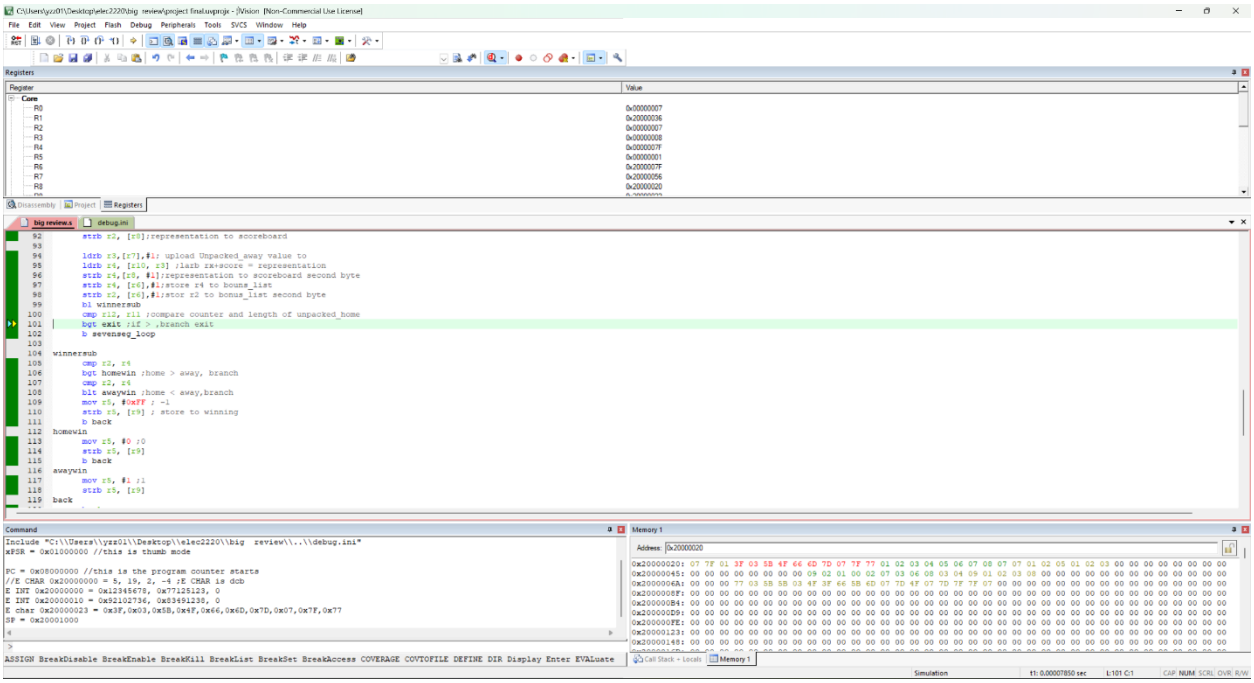
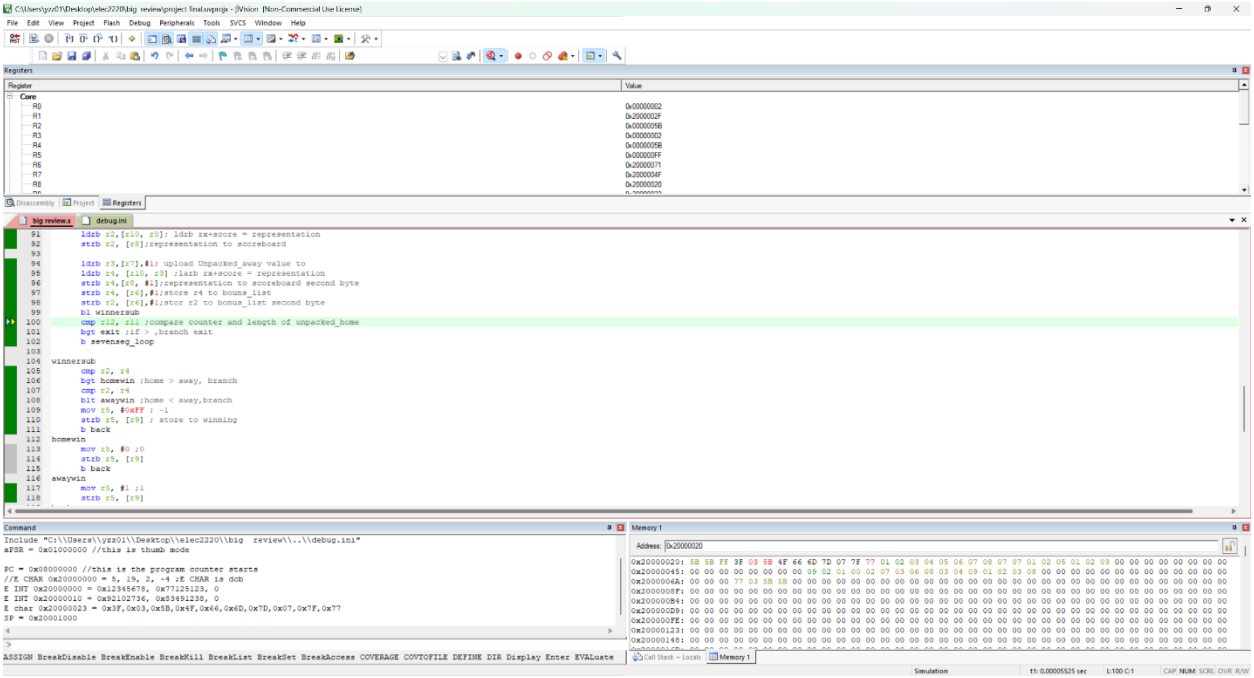
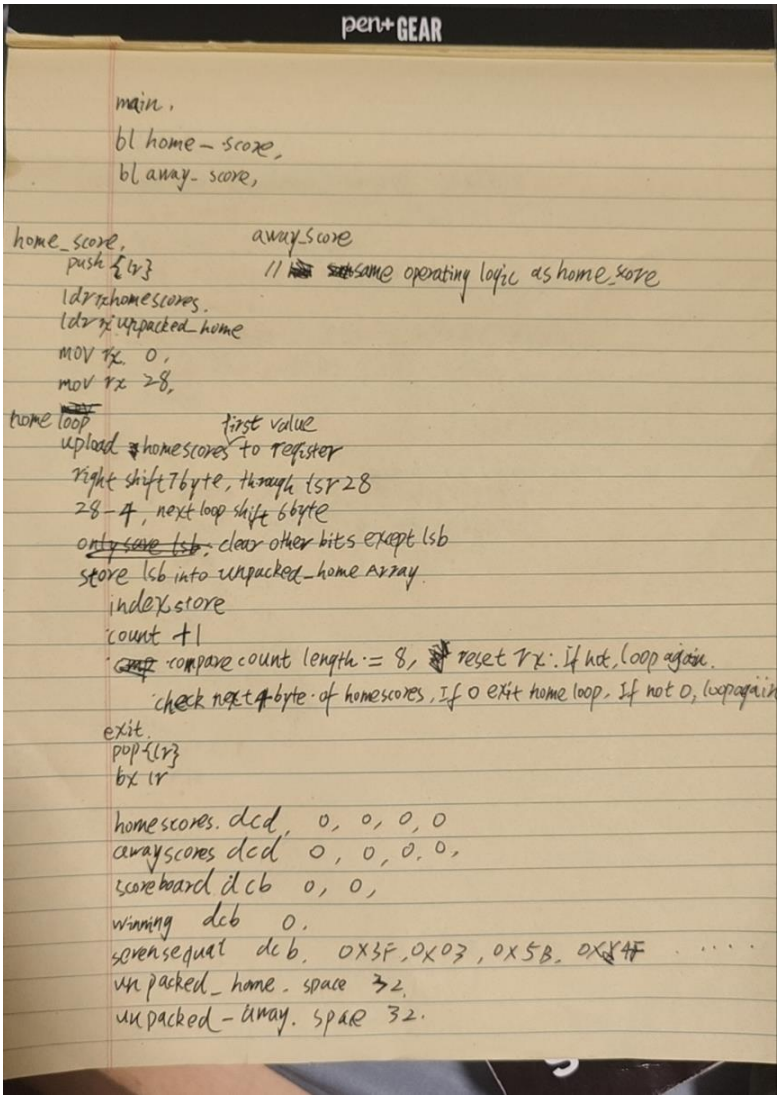

File Edit View Project Flash Debug Peripherals Tools SVCS Window Help
Registers
Register
Value
Core
R0
R1
R2
R3
R4
R5
R6
R7
R8
0x00000003
0x20000030
0x0000004F
0x00000001
0x00000003
0x00000000
0x20000073
0x20000050
0x20000020
Disassembly
Project
Registers
big review.s
debug.ini
92 strb r2, [r8];representation to scoreboard
93
94 ldrb r3,[r7],#1; upload Unpacked_away value to
95 ldrb r4, [r10, r3] ;larb rx+score = representation
96 strb r4,[r8, #1];representation to scoreboard second byte
97 strb r4, [r6],#1;store r4 to bouns_list
98 strb r2, [r6],#1;stor r2 to bonus_list second byte
99 bl winnersub
100 cmp r12, r11 ;compare counter and length of unpacked_home
101 bgt exit ;if > ,branch exit
102 b sevenseg_loop
103
104 winnersub
105 cmp r2, r4
106 bgt homewin ;home > away, branch
107 cmp r2, r4
108 blt awaywin ;home < away,branch
109 mov r5, #0xFF ; -1
110 strb r5, [r9] ; store to winning
111 b back
112 homewin
113 mov r5, #0 ;0
114 strb r5, [r9]
115 b back
116 awaywin
117 mov r5, #1 ;1
118 strb r5, [r9]
119 back
Command
Include "C:\\Users\\yzz01\\Desktop\\elec2220\\big review\\..\\debug.ini"
xPSR = 0x01000000 //this is thumb mode
PC = 0x08000000 //this is the program counter starts
//E CHAR 0x20000000 = 5, 19, 2, -4 ;E CHAR is dcb
E INT 0x20000000 = 0x12345678, 0x77125123, 0
E INT 0x20000010 = 0x92102736, 0x83491238, 0
E char 0x20000023 = 0x3F,0x03,0x5B,0x4F,0x66,0x6D,0x7D,0x07,0x7F,0x77
SP = 0x20001000
ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE COVTOFILE DEFINE DIR Display Enter EVALuate
Memory 1
Address: 0x20000020
0x20000020: 4F 03 00 3F 03 5B 4F 66 6D 7D 07 7F 77 01 02 03 04 05 06 07 08 07 07 01 02 05 01 02 03 00 00 00 00 00 00 00
0x20000045: 00 00 00 00 00 00 00 09 02 01 00 02 07 03 06 08 03 04 09 01 02 03 08 00 00 00 00 00 00 00 00 00 00 00 00
0x2000006A: 00 00 00 77 03 5B 5B 03 4F 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x2000008F: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000B4: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000D9: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000FE: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000123: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000148: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
Call Stack + Locals
Memory 1
Simulation
t1: 0.00005867 sec
L:101 C:1
CAP NUM SCRL OVR R/W


File Edit View Project Flash Debug Peripherals Tools SVCS Window Help
Registers
Register
Value
Core
R0
R1
R2
R3
R4
R5
R6
R7
R8
0x00000007
0x20000036
0x00000007
0x00000008
0x0000007F
0x00000001
0x2000007F
0x20000056
0x20000020
Disassembly
Project
Registers
big review.s
debug.ini
92 strb r2, [r8];representation to scoreboard
93
94 ldrb r3,[r7],#1; upload Unpacked_away value to
95 ldrb r4, [r10, r3] ;larb rx+score = representation
96 strb r4,[r8, #1];representation to scoreboard second byte
97 strb r4, [r6],#1;store r4 to bouns_list
98 strb r2, [r6],#1;stor r2 to bonus_list second byte
99 bl winnersub
100 cmp r12, r11 ;compare counter and length of unpacked_home
101 bgt exit ;if > ,branch exit
102 b sevenseg_loop
103
104 winnersub
105 cmp r2, r4
106 bgt homewin ;home > away, branch
107 cmp r2, r4
108 blt awaywin ;home < away,branch
109 mov r5, #0xFF ; -1
110 strb r5, [r9] ; store to winning
111 b back
112 homewin
113 mov r5, #0 ;0
114 strb r5, [r9]
115 b back
116 awaywin
117 mov r5, #1 ;1
118 strb r5, [r9]
119 back
Command
Include "C:\\Users\\yzz01\\Desktop\\elec2220\\big review\\..\\debug.ini"
xPSR = 0x01000000 //this is thumb mode
PC = 0x08000000 //this is the program counter starts
//E CHAR 0x20000000 = 5, 19, 2, -4 ;E CHAR is dcb
E INT 0x20000000 = 0x12345678, 0x77125123, 0
E INT 0x20000010 = 0x92102736, 0x83491238, 0
E char 0x20000023 = 0x3F,0x03,0x5B,0x4F,0x66,0x6D,0x7D,0x07,0x7F,0x77
SP = 0x20001000
ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE COVTOFILE DEFINE DIR Display Enter EVALuate
Memory 1
Address: 0x20000020
0x20000020: 07 7F 01 3F 03 5B 4F 66 6D 7D 07 7F 77 01 02 03 04 05 06 07 08 07 07 01 02 05 01 02 03 00 00 00 00 00 00 00
0x20000045: 00 00 00 00 00 00 00 09 02 01 00 02 07 03 06 08 03 04 09 01 02 03 08 00 00 00 00 00 00 00 00 00 00 00 00
0x2000006A: 00 00 00 77 03 5B 5B 03 4F 3F 66 5B 6D 07 7D 4F 07 7D 7F 7F 07 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x2000008F: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000B4: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000D9: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000FE: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000123: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000148: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
Call Stack + Locals
Memory 1
Simulation
t1: 0.00007850 sec
L:101 C:1
CAP NUM SCRL OVR R/W


C:\Users\yzz01\Desktop\elec2220\big review\project finaluvprojx - [Vision (Non-Commercial Use License)
File Edit View Project Flash Debug Peripherals Tools SVCS Window Help
Registers
Register
Value
Core
R0 0x00000002
R1 0x2000002F
R2 0x0000005B
R3 0x00000003
R4 0x0000005B
R5 0x000000FF
R6 0x20000071
R7 0x2000004F
R8 0x20000020
Disassembly Project Registers
big review.s debug.ini
91 ldrb r2,[r10, r0]; ldrb rx-score = representation
92 strb r2, [r8];representation to scoreboard
93
94 ldrb r3,[r7],#1; upload Unpacked_away value to
95 ldrb r4, [r10, r3] ;larb rx-score = representation
96 strb r4,[r8, #1];representation to scoreboard second byte
97 strb r4, [r6],#1;store r4 to bouns_list
98 strb r3, [r6],#1;stor r2 to bonus_list second byte
99 bl winnersub
100 cmp r12, r11 ;compare counter and length of unpacked_home
101 bgt exit ;if > ,branch exit
102 b sevenseg_loop
103
104 winnersub
105 cmp r2, r4
106 bgt homewin ;home > away, branch
107 cmp r2, r4
108 blt awaywin ;home < away,branch
109 mov r5, #0xFF ; -1
110 strb r5, [r9] ; store to winning
111 b back
112 homewin
113 mov r5, #0 ;0
114 strb r5, [r9]
115 b back
116 awaywin
117 mov r5, #1 ;1
118 strb r5, [r9]
Command
Include "C:\\Users\\yzz01\\Desktop\\elec2220\\big review\\..\\debug.ini"
aPSR = 0x01000000 //this is thumb mode
PC = 0x08000000 //this is the program counter starts
//E CHAR 0x20000000 = 5, 19, 2, -4 //E CHAR is dcb
E INT 0x20000000 = 0x12345678, 0x77125123, 0
E INT 0x20000010 = 0x92102736, 0x83491238, 0
E char 0x20000023 = 0x3F,0x03,0x5B,0x4F,0x66,0x6D,0x7D,0x07,0x7F,0x77
SP = 0x20001000
ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE COVTOFILE DEFINE DIR Display Enter EVALuate
Memory 1
Address: 0x2000020
0x20000020: 5B 5B FF 3F 03 5B 4F 66 6D 7D 07 7F 77 01 02 03 04 05 06 07 08 07 07 01 02 05 01 02 03 00 00 00 00 00 00 00
0x20000045: 00 00 00 00 00 00 00 09 02 01 00 02 07 03 06 08 03 04 09 01 02 03 08 00 00 00 00 00 00 00 00 00 00 00 00
0x2000006A: 00 00 00 77 03 5B 5B 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x2000008F: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000B4: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000D9: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x200000FE: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000123: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
0x20000148: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
Call Stack + Locals Memory 1
Simulation
t1: 0.00005525 sec
L:100 C:1
CAP NUM SCRL OVR R/W


pen+GEAR
main,
bl home_score,
bl away_score,
home_score,
push {lr}
ldr r2,homescores.
ldr r3,unpacked_home
mov rx, 0,
mov rx, #8,
home loop
upload homescores to register
right shift 7byte, through lsr 28
28-4, next loop shift 6byte
store lsb into unpacked_home Array
index store
count +1
compare count length = 8, reset rx. If not, loop again.
check next 4byte of homescores, If 0 exit home loop. If not 0, loop again
exit.
pop {lr}
bx lr
homescores. dcd, 0, 0, 0, 0
awayscores dcd 0, 0, 0, 0,
scoreboard dcb 0, 0,
winning dcb 0.
sevensequal dcb. 0x3F, 0x03, 0x5B, 0x4F
unpacked_home. space 32.
unpacked_away. space 32.

```
sub sevenseq
loop ~~index~~ ~~counter~~ counter+1 , push{lr}
    r1 = score.
    ldr rx= sevensequal
    ldrb rx+score => representation.
    bl winnersub
    cmp counter, length of unpacked_home.
If counter > unpacked, branh exit.
    b loop

winnersub
    If home > away, branch home homewin
    If home < away, branch awaywin
    ~~move~~
    mov rx, -1
    ~~b back~~ bx lr
homewin
    mov rx, 0,
    bx lr
arraywin
    movrx, 1
    bx lr

exit
  pop{lr}
  bx lr
```

bonus

~~str str push push~~

rx = representation of homescores.

ry = ~~awayscores~~ representation of awayscores

rz = bouns_list

~~push~~ strb ry, [rz] #1

strb rx, [rz] #1

~~pop~~

```
ldr r0, [rz, index]
~~add~~ index + 2
lsl r0, #16
lsr r0 #16.
str r0 [ bonous, Index]
Index + 4
cmp r0, #0
~~b loop~~, beq end
b loop.
end:
bx lr
```