

ITESO, Universidad Jesuita de Guadalajara

Organización y Arquitectura de Computadoras

Práctica #1

Alumno:

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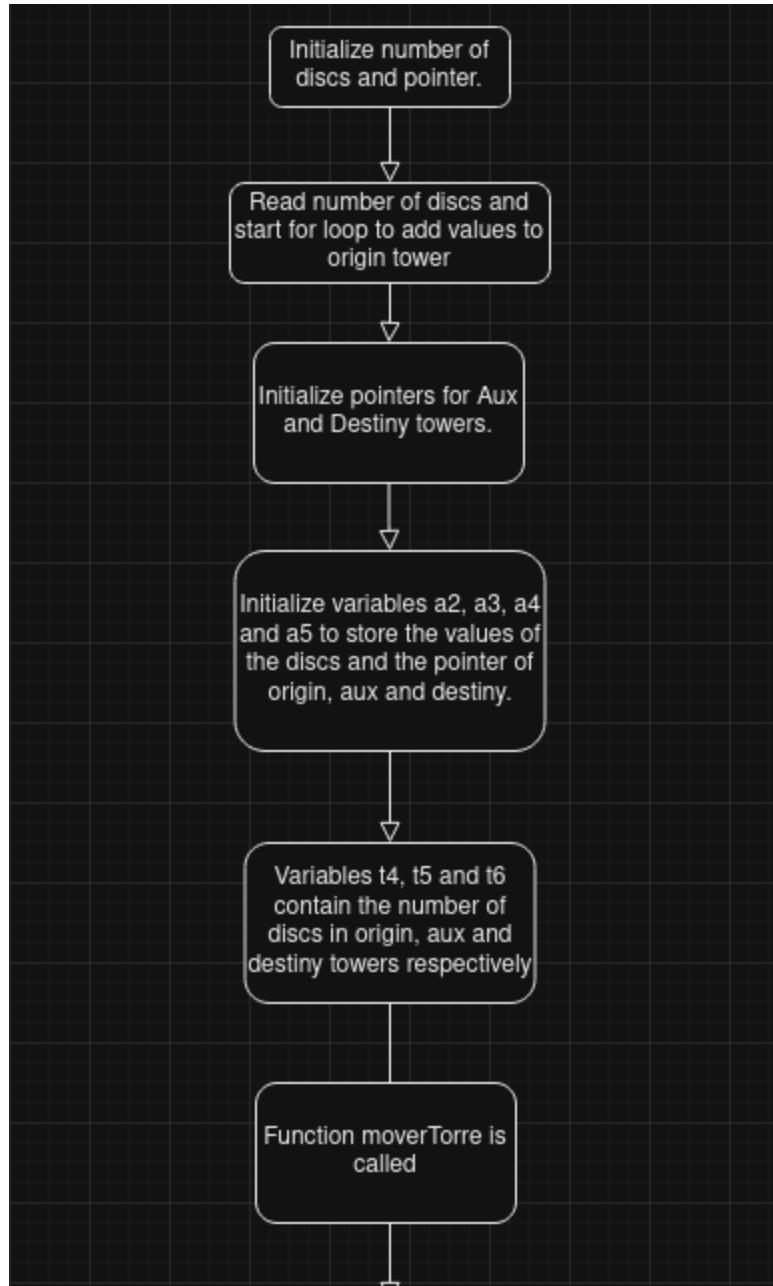
Profesor:

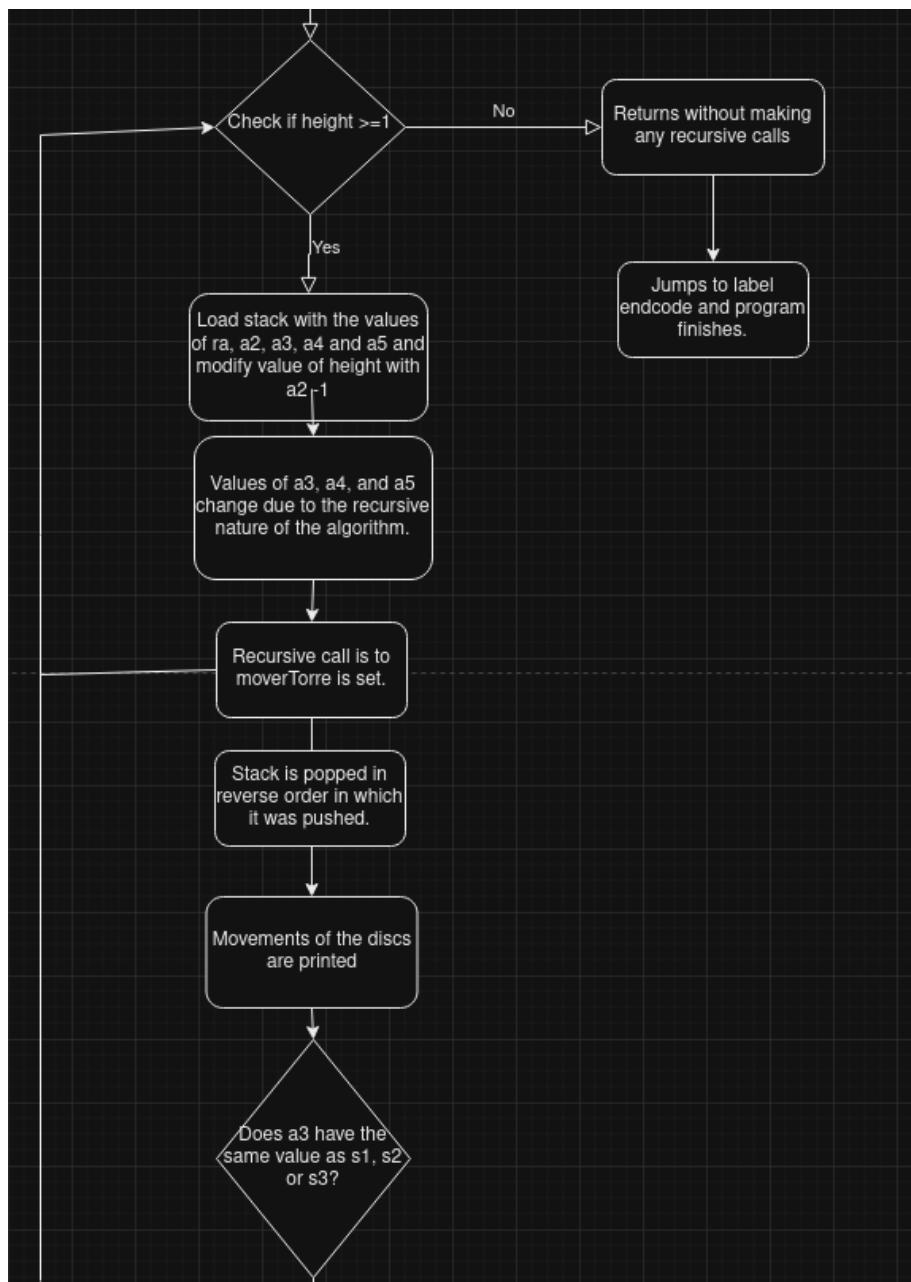
Juan Pablo Ibarra Esparza

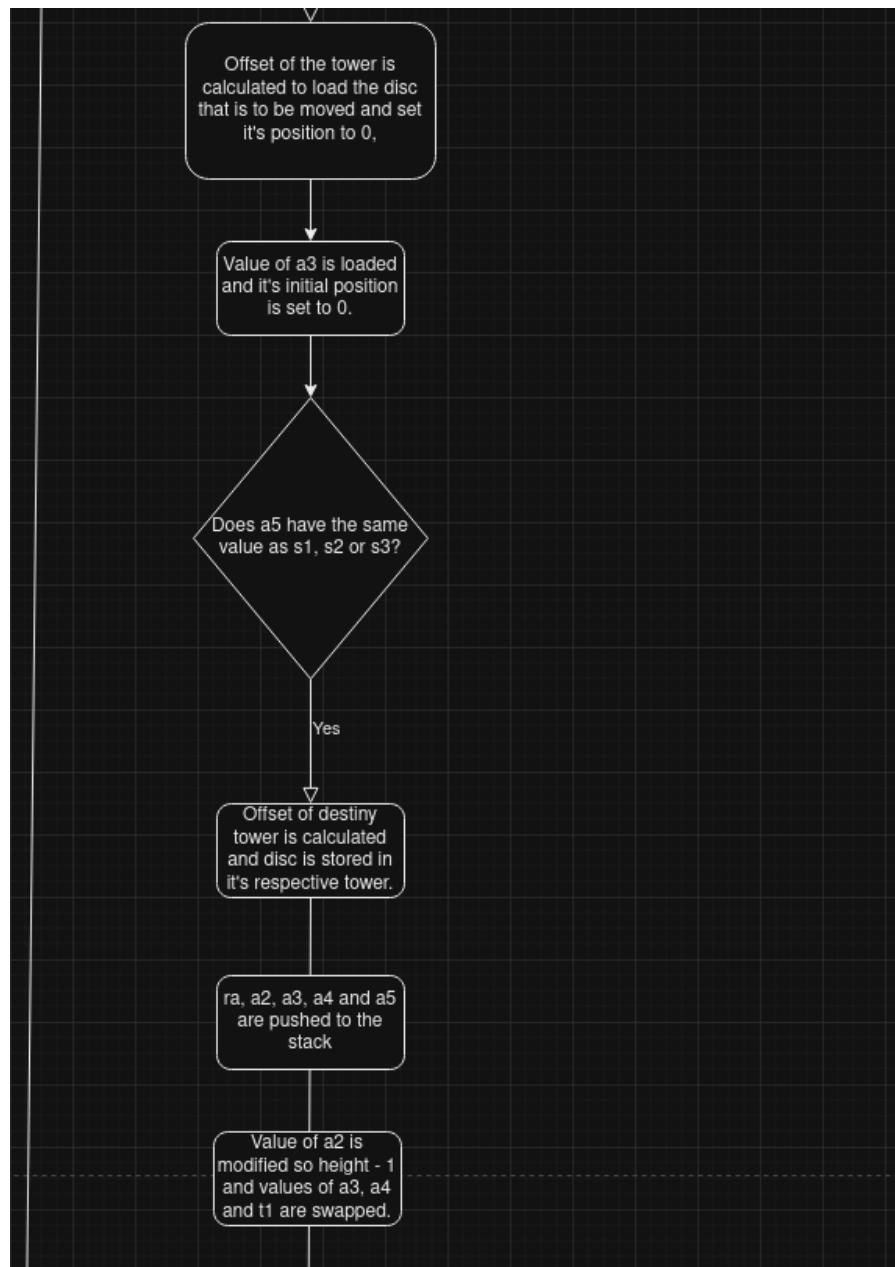
Fecha:

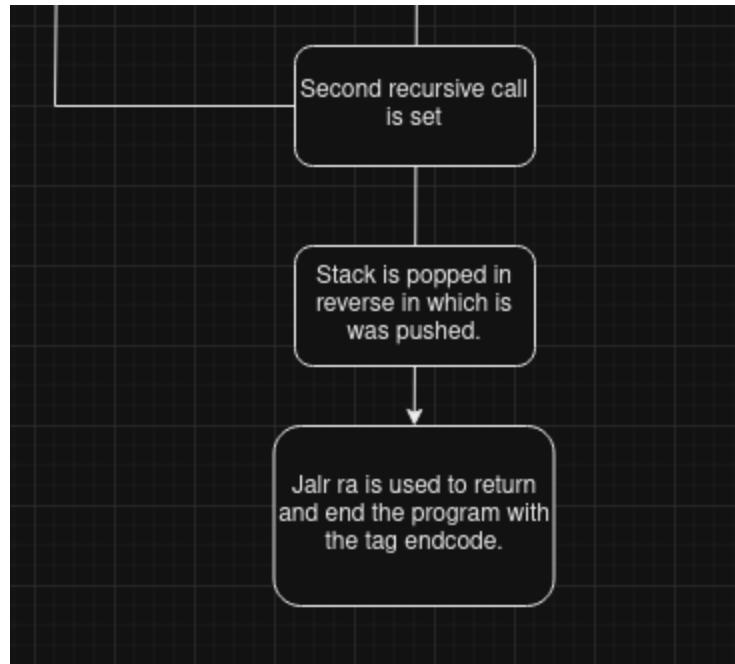
20/03/2024

Diagrama de Flujo









Decisiones tomadas al diseñar el código

Lo inicial fue la decisión de cómo manejar las torres, o sea, si iban a hacer horizontales o verticales y se nos hizo más sencillo hacerlo de manera horizontal. En base a eso, lo primero a realizar fue declarar el apuntador a la torre origen (0x10010) y llenarla con un for comenzando con el 1 hasta n cantidad de discos según lo declarado anteriormente. Después, declaramos los apuntadores para auxiliar y destino (estas quedarían n espacios después de su anterior). Tras esto, declaramos variables en los registros a2, a3, a4 y a5 que nos servirán para almacenar los valores de los discos y los punteros de origen, aux y destino respectivamente, lo cual nos permitirá no perder los valores originales declarados en los registros s. Por último, declaramos en t4 (origen), t5 (auxiliar) y t6 (destino) la cantidad de discos que hay en cada torre.

Para la segunda parte del código, comienza la llamada a *moverTorre* la cual es la función que será recursiva. De acuerdo con nuestro código utilizado en C, se realiza una condición verificando que $altura \geq 1$ y en caso de que lo sea se hacen las dos llamadas recursivas. Para ello negamos la condición ($altura < 1$) y comenzamos la primera llamada recursiva. En la llamada recursiva lo que se hace es cargar al stack los datos de ra, a2, a3, a4 y a5 para no perder esos valores, después se modifica la altura restándole 1 a a2, después se cambian los valores de a3, a4 y a5 debido a que la llamada recursiva cambia

el orden de los parámetros por lo que se guarda en una temporal y se hace un swap de estos según el código. El paso siguiente es hacer la llamada recursiva como tal con un *jal* y por último se hace pop del stack en orden inverso de cómo se guardaron (esto se realiza de manera similar en la segunda llamada recursiva únicamente cambiando el orden de la modificación de argumentos).

Tras terminar esta llamada con todos sus pasos se realiza una impresión del [disco a mover – origen – destino] para conocer el movimiento a realizar y mover los registros correspondientes. Aquí, se entrará a unas condicionales para verificar si a3 que tiene el valor desde donde se moverá el disco en a2 hasta la torre en a5. Lo que se hará es calcular el offset de la torre para cargar el valor a mover y reemplazarlo por un 0 y después con el otro if se calcula el offset el destino y se carga en la torre y espacio correspondiente. Al terminar esta carga de datos, se procede a realizar la segunda llamada recursiva de igual manera con los pasos correspondientes similar que en la primera llamada. Por último, se realiza un *jalr ra* para retornar y al finalizar el código terminaremos en una etiqueta llamada *endcode* la cual indicara el término del código.

El código en GitHub es:

https://github.com/luisbravor00/Practica1_OrgYArqui_LuisHoracio

Simulación en RARS para 3 discos

```
##  
.text  
    # Definir variable para almacenar n. de discos  
    addi $0, zero, 3      # numero de discos  
    lui $1, 0x10010        # declarar apuntador al arr Origen
```

Algo importante a tomar en cuenta en esta simulación es que en Run I/O se muestra el paso siguiente a realizar, lo que quiere decir que cada imagen mostrara un movimiento comenzando por la declaración del array y se mostrara abajo el siguiente paso a realizar.

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	2	3	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0

◀ ▶ 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Messages **Run I/O**

```
1-0x10010008-0x10010020
```

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	2	3	0	0	0	0	0
0x10010020	1	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0

◀ ▶ 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Messages **Run I/O**

```
1-0x10010008-0x10010020
2-0x10010008-0x10010014
```

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	3	0	0	2	0	0
0x10010020	1	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0

◀ ▶ 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Messages **Run I/O**

```
1-0x10010008-0x10010020
2-0x10010008-0x10010014
1-0x10010020-0x10010014
```

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
x10010000	0	0	3	0	1	2	0	0	▲
x10010020	0	0	0	0	0	0	0	0	○
x10010040	0	0	0	0	0	0	0	0	≡
x10010060	0	0	0	0	0	0	0	0	
x10010080	0	0	0	0	0	0	0	0	
x100100a0	0	0	0	0	0	0	0	0	
x100100c0	0	0	0	0	0	0	0	0	▼

◀ ▶ 0x10010000 (.data) ▼ Hexadecimal Addresses Hexadecimal Values ASCII

Messages									
Run I/O									
1-0x10010008-0x10010020									
2-0x10010008-0x10010014									
1-0x10010020-0x10010014									
3-0x10010008-0x10010020									

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
0x10010000	0	0	0	0	1	2	0	0	▲
0x10010020	3	0	0	0	0	0	0	0	○
0x10010040	0	0	0	0	0	0	0	0	≡
0x10010060	0	0	0	0	0	0	0	0	
0x10010080	0	0	0	0	0	0	0	0	
0x100100a0	0	0	0	0	0	0	0	0	
0x100100c0	0	0	0	0	0	0	0	0	▼

◀ ▶ 0x10010000 (.data) ▼ Hexadecimal Addresses Hexadecimal Values ASCII

Messages									
Run I/O									
1-0x10010008-0x10010020									
2-0x10010008-0x10010014									
1-0x10010020-0x10010014									
3-0x10010008-0x10010020									
1-0x10010014-0x10010008									

Clear

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
0x10010000	0	0	1	0	0	2	0	0	▲
0x10010020	3	0	0	0	0	0	0	0	○
0x10010040	0	0	0	0	0	0	0	0	≡
0x10010060	0	0	0	0	0	0	0	0	
0x10010080	0	0	0	0	0	0	0	0	
0x100100a0	0	0	0	0	0	0	0	0	
0x100100c0	0	0	0	0	0	0	0	0	▼

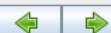
◀ ▶ 0x10010000 (.data) ▼ Hexadecimal Addresses Hexadecimal Values ASCII

Messages									
Run I/O									
1-0x10010008-0x10010020									
2-0x10010008-0x10010014									
1-0x10010020-0x10010014									
3-0x10010008-0x10010020									
1-0x10010014-0x10010008									
2-0x10010014-0x10010020									

Clear

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	1	0	0	0	0	2
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0



0x10010000 (.data)

Hexadecimal Addresses

Hexadecimal Values

ASCII

Messages **Run I/O**

```

1-0x10010008-0x10010020
2-0x10010008-0x10010014
1-0x10010020-0x10010014
3-0x10010008-0x10010020
1-0x10010014-0x10010008
2-0x10010014-0x10010020
1-0x10010008-0x10010020

```

Clear

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	0	0	1	2
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0



0x10010000 (.data)

Hexadecimal Addresses

Hexadecimal Values

ASCII

Messages **Run I/O**

```

2-0x10010008-0x10010014
1-0x10010020-0x10010014
3-0x10010008-0x10010020
1-0x10010014-0x10010008
2-0x10010014-0x10010020
1-0x10010008-0x10010020

```

Clear

```
-- program is finished running (dropped off bottom) --
```

Análisis del comportamiento del stack para el caso de 3 discos

Las siguientes capturas muestran como se ve el stack cuando entra y sale de una llamada recursiva.

The screenshot shows a debugger interface with two main panes: Text Segment and Data Segment.

Text Segment:

Bkpt	Address	Code	Basic	Source
	0x00400000	0x0030043 addi x8,x0,3	13:	addi \$0, zero, 3 # numero de discos
	0x00400004	0x1001040 lui x9,65532	14:	lui \$1, 0x10010 # declarar apuntador...
	0x00400008	0x00544e3b1t x5,x1	17:	addi t0, zero, 1 # variable i = t0
	0x0040000c	0x00544e3b1t x5,x1	18: for:	ble \$0, t0, endfor # \$0 < i (t0)
	0x00400010	0x0054a023sw x5(i9)	19:	sw \$0, 0(\$1) # Almacenar en \$1 ca...
	0x00400014	0x00449493 addi x9,x9,4	20:	addi \$1, \$1, 4 # accedemos a la sig...
	0x00400018	0x00128293 addi x5,x5,1	21:	addi t0, t0, 1 # i++
	0x0040001c	0xfffff0fejal x1,-16	22:	jal for
	0x00400020	0xffffc48493 addi x9,x9,-4	23:	endfor: addi \$1, \$1, -4
	0x00400024	0x00241293 slli x5,x8,2	25:	slli t0, \$0, 2
	0x00400028	0x00548933 addi x18,x9,x5	26:	add s2, \$1, t0
	0x0040002c	0x00509093 addd x19,x18,x5	28:	add s3, s2, t0
	0x00400030	0x00800633 addd x12,x0,x8	31:	add a2, zero, \$0 # guardamos en a2 el...
	0x00400034	0x00900633 addd x13,x0,x9	32:	add a3, zero, \$1 # guardamos en a3 el...
	0x00400038	0x01200733 addd x14,x0,x18	33:	add a4, zero, \$2 # guardamos en a4 el...
	0x0040003c	0x01300733 addd x15,x0,x19	34:	add a5, zero, \$3 # guardamos en a5 el...
	0x00400040	0x00800eb3 addi x29,x0,x8	35:	add t4, zero, \$0 # cantidad de discos...
	0x00400044	0x00000f13 addi x30,x0,0	36:	addi t5, zero, 0 # cantidad de discos...

Data Segment:

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	0	0	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0

Bottom status bar: 0x10010000 (.data) | Hexadecimal Addresses | Hexadecimal Values | ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x00300413 addi x8,x0,3	13: addi s0, zero, 3	# numero de discos
	0x00400004	0x100104b7 lui x9,65552	14: lui s1, 0x10010	# declarar apuntador...
	0x00400008	0x00100293 addi x5,x0,1	17: addi t0, zero, 1	# variable i = t0
	0x0040000c	0x0054a63b1t x8,x5,20	18: for: blt s0, t0, endfor	# s0 < i (t0)
	0x00400010	0x0054a023sw x5,0(x9)	19: sw t0, 0(\$1)	# Almacenar en s1 ca...
	0x00400014	0x00448493 addi x9,x9,4	20: addi s1, s1, 4	# accedemos a la sig...
	0x00400018	0x00128293 addi x5,x5,1	21: addi t0, t0, 1	# i++
	0x0040001c	0xffff1f0ef1jal x1,-16	22: jal for	
	0x00400020	0xffff48493 addi x9,x9,-4	23: endfor: addi s1, s1, -4	
	0x00400024	0x00241293 slli x5,x8,2	25: slli t0, s0, 2	
	0x00400028	0x00000000 addi x18,x9,x5	26: add s2, s1, t0	
	0x0040002c	0x0050093 addi x19,x18,15	28: add s4, s2, t0	
	0x00400030	0x00800633 addd x12,x0,x8	31: add a2, zero, s0	# guardamos en a2 el...
	0x00400034	0x0090093 addi x13,x0,x9	32: add a3, zero, s1	# guardamos en a3 el...
	0x00400038	0x01200723 addd x14,x0,x18	33: add a4, zero, s2	# guardamos en a4 el...
	0x0040003c	0x0130073 addd x15,x0,x19	34: add a5, zero, s3	# guardamos en a5 el...
	0x00400040	0x00800eb3 addd x29,x0,x8	35: add t4, zero, s0	# cantidad de discos...
	0x00400044	0x00000f13 addi x30,x0,0	36: addi t5, zero, 0	# cantidad de discos...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	2	0	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x00300413 addi x8,x0,3	13: addi s0, zero, 3	# numero de discos
	0x00400004	0x100104b7 lui x9,65552	14: lui s1, 0x10010	# declarar apuntador...
	0x00400008	0x00100293 addi x5,x0,1	17: addi t0, zero, 1	# variable i = t0
	0x0040000c	0x0054a63b1t x8,x5,20	18: for: blt s0, t0, endfor	# s0 < i (t0)
	0x00400010	0x0054a023sw x5,0(x9)	19: sw t0, 0(\$1)	# Almacenar en s1 ca...
	0x00400014	0x00448493 addi x9,x9,4	20: addi s1, s1, 4	# accedemos a la sig...
	0x00400018	0x00128293 addi x5,x5,1	21: addi t0, t0, 1	# i++
	0x0040001c	0xffff1f0ef1jal x1,-16	22: jal for	
	0x00400020	0xffff48493 addi x9,x9,-4	23: endfor: addi s1, s1, -4	
	0x00400024	0x00241293 slli x5,x8,2	25: slli t0, s0, 2	
	0x00400028	0x00548933 addd x18,x9,x5	26: add s2, s1, t0	
	0x0040002c	0x0050093 addd x19,x18,15	28: add s4, s2, t0	
	0x00400030	0x00800633 addd x12,x0,x8	31: add a2, zero, s0	# guardamos en a2 el...
	0x00400034	0x0090093 addd x13,x0,x9	32: add a3, zero, s1	# guardamos en a3 el...
	0x00400038	0x01200723 addd x14,x0,x18	33: add a4, zero, s2	# guardamos en a4 el...
	0x0040003c	0x0130073 addd x15,x0,x19	34: add a5, zero, s3	# guardamos en a5 el...
	0x00400040	0x00800eb3 addd x29,x0,x8	35: add t4, zero, s0	# cantidad de discos...
	0x00400044	0x00000f13 addi x30,x0,0	36: addi t5, zero, 0	# cantidad de discos...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	2	3	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x00300413 addi x8,x0,3	13: addi s0, zero, 3	# numero de discos
	0x00400004	0x100104b7 lui x9,65552	14: lui s1, 0x10010	# declarar apuntador...
	0x00400008	0x00100293 addi x5,x0,1	17: addi t0, zero, 1	# variable i = t0
	0x0040000c	0x0054a63b1t x8,x5,20	18: for: blt s0, t0, endfor	# s0 < i (t0)
	0x00400010	0x0054a023sw x5,0(x9)	19: sw t0, 0(\$1)	# Almacenar en s1 ca...
	0x00400014	0x00448493 addi x9,x9,4	20: addi s1, s1, 4	# accedemos a la sig...
	0x00400018	0x00128293 addi x5,x5,1	21: addi t0, t0, 1	# i++
	0x0040001c	0xffff1f0ef1jal x1,-16	22: jal for	
	0x00400020	0xffff48493 addi x9,x9,-4	23: endfor: addi s1, s1, -4	
	0x00400024	0x00241293 slli x5,x8,2	25: slli t0, s0, 2	
	0x00400028	0x00548933 addd x18,x9,x5	26: add s2, s1, t0	
	0x0040002c	0x0050093 addd x19,x18,15	28: add s4, s2, t0	
	0x00400030	0x00800633 addd x12,x0,x8	31: add a2, zero, s0	# guardamos en a2 el...
	0x00400034	0x0090093 addd x13,x0,x9	32: add a3, zero, s1	# guardamos en a3 el...
	0x00400038	0x01200723 addd x14,x0,x18	33: add a4, zero, s2	# guardamos en a4 el...
	0x0040003c	0x0130073 addd x15,x0,x19	34: add a5, zero, s3	# guardamos en a5 el...
	0x00400040	0x00800eb3 addd x29,x0,x8	35: add t4, zero, s0	# cantidad de discos...
	0x00400044	0x00000f13 addi x30,x0,0	36: addi t5, zero, 0	# cantidad de discos...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	2	3	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment								
Bkpt	Address	Code	Basic	Source				
	0x00400020	0xffffc48003 addi x9,x9,-4		25:	endfor: addi s1, s1,-4			
	0x00400024	0x00241283 addi x5,x8,2		26:	elli t0, s0, 2			
	0x00400028	0x00548933 addi x18,x18,5		28:	add s2, s1, t0			
	0x0040002c	0x00509093 addi x19,x19,5		29:	add s3, s2, t0			
	0x00400030	0x00800633 addi x12,x0,x8		31:	add a2, zero, s0 # guardamos en a2 el...			
	0x00400034	0x00900933 addi x13,x0,x9		32:	add a3, zero, s1 # guardamos en a3 el...			
	0x00400038	0x01200733 addi x14,x0,x18		33:	add a4, zero, s2 # guardamos en a4 el...			
	0x0040003c	0x01300733 addi x15,x0,x19		34:	add a5, zero, s3 # guardamos en a5 el...			
	0x00400040	0x00800e3 addi x29,x0,x8		35:	add t4, zero, s0 # cantidad de discos...			
	0x00400044	0x00000f13 addi x30,x0,0		36:	addi t5, zero, 0 # cantidad de discos...			
	0x00400048	0x00000f93 addi x31,x0,0		37:	addi t6, zero, 0 # cantidad de discos...			
	0x0040004c	0x1a80000f jal x1,424		38:	jal moverTorre			
	0x00400050	0x00100293 addi x5,x0,1		39:	jal endfor			
	0x00400054	0x18564e63 addi x12,x5,412		40:	moverTorre: addi t0, zero, 1			
	0x00400058	0x18564e63 addi x12,x5,412		49:	blt a2, t0, endmoverTorre # al...			
	0x0040005c	0xfc1013 addi x2,x2,-4		53:	addi sp, sp, -4 # Cargamos ra...			
	0x00400060	0x000012023 sw x1,0(x2)		54:	sw ra, 0(sp)			
	0x00400064	0xfffc1013 addi x2,x2,-4		55:	addi sp, sp, -4 # Cargamos a...			

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
0x7fffffe0	0	0	0	0	0	0	4194384	0	
0x7fffff00	0	0	0	0	0	0	0	0	
0x7fffff020	0	0	0	0	0	0	0	0	
0x7fffff040	0	0	0	0	0	0	0	0	
0x7fffff060	0	0	0	0	0	0	0	0	
0x7fffff080	0	0	0	0	0	0	0	0	
0x7fffff0a0	0	0	0	0	0	0	0	0	
0x7fffff0c0	0	0	0	0	0	0	0	0	
0x7fffff0e0	0	0	0	0	0	0	0	0	
0x7fffff100	0	0	0	0	0	0	0	0	
0x7fffff120	0	0	0	0	0	0	0	0	
0x7fffff140	0	0	0	0	0	0	0	0	
0x7fffff160	0	0	0	0	0	0	0	0	
0x7fffff180	0	0	0	0	0	0	0	0	
0x7fffff1a0	0	0	0	0	0	0	0	0	
0x7fffff1c0	0	0	0	0	0	0	0	0	

Edit Execute

Text Segment								
Bkpt	Address	Code	Basic	Source				
	0x00400020	0x00548933 addi x18,x9,5		26:	add s2, s1, t0			
	0x00400024	0x00509093 addi x19,x18,5		28:	add s3, s2, t0			
	0x00400028	0x00800633 addi x13,x0,x8		30:	add a2, zero, s0 # guardamos en a2 el...			
	0x00400030	0x01200733 addi x14,x0,x18		32:	add a3, zero, s1 # guardamos en a3 el...			
	0x00400034	0x01300733 addi x15,x0,x19		33:	add a4, zero, s2 # guardamos en a4 el...			
	0x00400038	0x00800e3 addi x29,x0,x8		34:	add a5, zero, s3 # guardamos en a5 el...			
	0x00400040	0x00000f13 addi x30,x0,0		35:	add t4, zero, s0 # cantidad de discos...			
	0x00400044	0x00000f93 addi x31,x0,0		36:	addi t5, zero, 0 # cantidad de discos...			
	0x00400048	0x0080000f jal x1,8		37:	addi t6, zero, 0 # cantidad de discos...			
	0x00400050	0x1a80000f jal x1,424		38:	jal moverTorre			
	0x00400054	0x00100293 addi x5,x0,1		39:	jal endfor			
	0x00400058	0x18564e63 addi x12,x5,412		40:	moverTorre: addi t0, zero, 1			
	0x0040005c	0xfc1013 addi x2,x2,-4		49:	blt a2, t0, endmoverTorre # al...			
	0x00400060	0x000012023 sw x1,0(x2)		53:	addi sp, sp, -4 # Cargamos ra...			
	0x00400064	0xfffc1013 addi x2,x2,-4		54:	sw ra, 0(sp)			
	0x00400068	0x000012023 sw x1,0(x2)		55:	addi sp, sp, -4 # Cargamos a...			
	0x0040006c	0xfffc1013 addi x2,x2,-4		57:	addi sp, sp, -4 # Cargamos o...			

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	0	0	0	0	0	0	4194384	0
0x7fffff00	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400030	0x00800633 add x12,x0,x8	31:	add a2, zero, \$0 # guardamos en a2 el...
	0x00400034	0x00900633 add x13,x0,x9	32:	add a3, zero, \$1 # guardamos en a3 el...
	0x00400038	0x01200733 add x14,x0,x18	33:	add a4, zero, \$2 # guardamos en a4 el...
	0x0040003c	0x01300733 add x15,x0,x19	34:	add a5, zero, \$3 # guardamos en a5 el...
	0x00400040	0x00800eb3 add x29,x0,x8	35:	add t4, zero, \$0 # cantidad de discos...
	0x00400044	0x00000f13 addi x31,x0,0	36:	addi t5, zero, 0 # cantidad de discos...
	0x00400048	0x00000f93 addi x31,x0,0	37:	addi t6, zero, 0 # cantidad de discos...
	0x0040004c	0x008000ef jal x1,8	38:	jal moverTorre
	0x00400050	0x1a8000ef jal x1,424	39:	jal endcode
	0x00400054	0x00000f20 addi x5,x0,1	48:	moverTorre: addi t0, zero, 1
	0x00400058	0x18564e63 blt x12,x5,412	49:	blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffffc10113 addi x2,x2,-4	53:	addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023 sw x1,0(x2)	54:	sw ra, 0(sp)
	0x00400064	0xffffc10113 addi x2,x2,-4	55:	addi sp, sp, -4 # Cargamos a...
	0x00400068	0x00112023 sw x12,0(x2)	56:	sw a2, 0(sp)
	0x0040006c	0xffffc10113 addi x2,x2,-4	57:	addi sp, sp, -4 # Cargamos o...
	0x00400070	0x00112023 sw x13,0(x2)	58:	sw a3, 0(sp)
	0x00400074	0xffffc10113 addi x2,x2,-4	59:	addi sp, sp, -4 # Cargamos d...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	0	0	0	0	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0	0	0	0
0x7fffffd00	0	0	0	0	0	0	0	0
0x7fffffe00	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff200	0	0	0	0	0	0	0	0
0x7fffff300	0	0	0	0	0	0	0	0
0x7fffff400	0	0	0	0	0	0	0	0
0x7fffff500	0	0	0	0	0	0	0	0
0x7fffff600	0	0	0	0	0	0	0	0
0x7fffff700	0	0	0	0	0	0	0	0
0x7fffff800	0	0	0	0	0	0	0	0
0x7fffff900	0	0	0	0	0	0	0	0
0x7fffffa00	0	0	0	0	0	0	0	0
0x7fffffb00	0	0	0	0	0	0	0	0
0x7fffffc00	0	0	0	0	0			

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400040	0x00800eb3addi x29,x0,x8		
	0x00400044	0x00100293addi x30,x0,0		
	0x00400048	0x00000faddi x31,x0,0		
	0x0040004c	0x008000fjal x1,-1		
	0x00400050	0x1a8000fjal x1,424		
✓	0x00400054	0x00100293addi x5,x0,1	35: add t4, zero, s0 # cantidad de discos...	
	0x00400058	0x18564e63blt x12,x5,412	36: addi t5, zero, 0 # cantidad de discos...	
	0x0040005c	0xffffc10113addi x2,x2,-4	37: addi t6, zero, 0 # cantidad de discos...	
	0x00400060	0x00112023sw x1,0(x2)	38: jal moverTorre	
	0x00400064	0xffffc10113addi x2,x2,-4	39: jal endcode	
	0x00400068	0x00012023sw x12,0(x2)	48: moverTorre: addi t0, zero, 1	
	0x0040006c	0xffffc10113addi x2,x2,-4	49: blt a2, t0, endmoverTorre # al...	
	0x00400070	0x00d12023sw x13,0(x2)	53: addi sp, sp, -4 # Cargamos ra...	
	0x00400074	0xffffc10113addi x2,x2,-4	54: sw ra, 0(sp)	
	0x00400078	0x00f12023sw x15,0(x2)	55: addi sp, sp, -4 # Cargamos a...	
	0x0040007c	0xffffc10113addi x2,x2,-4	56: sw a2, 0(sp)	
	0x00400080	0x00012023sw x14,0(x2)	57: addi sp, sp, -4 # Cargamos o...	
	0x00400084	0xfffff60613addi x12,x12,-1	58: sw a3, 0(sp)	
	0x00400088	0x00e00333addi x6,x0,x14	59: addi sp, sp, -4 # Cargamos d...	
	0x0040008c	0x00f00733addi x14,x0,x15	60: sw a5, 0(sp)	
	0x00400090	0x00600703addi x15,x0,x6	61: addi sp, sp, -4 # Cargamos a...	
	0x00400094	0xfc1ff0efjal x1,-64	62: sw a4, 0(sp)	
			63: addi a2, a2, -1	
			64: add il, zero, a4 # tl = aux	
			65: add a4, zero, a5 # aux = destino	
			66: add a5, zero, tl # destino = aux	
			67: jal moverTorre	

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	0	0	0	268501012	268501024	268501000	3	4194384
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000fjal x1,424		
✓	0x00400054	0x00100293addi x5,x0,1	39: jal endcode	
	0x00400058	0x18564e63blt x12,x5,412	48: moverTorre: addi t0, zero, 1	
	0x0040005c	0xffffc10113addi x2,x2,-4	49: blt a2, t0, endmoverTorre # al...	
	0x00400060	0x00112023sw x1,0(x2)	53: addi sp, sp, -4 # Cargamos ra...	
	0x00400064	0xffffc10113addi x2,x2,-4	54: sw ra, 0(sp)	
	0x00400068	0x00012023sw x12,0(x2)	55: addi sp, sp, -4 # Cargamos a...	
	0x00400070	0xffffc10113addi x13,0(x2)	56: sw a2, 0(sp)	
	0x00400074	0xffffc10113addi x2,x2,-4	57: addi sp, sp, -4 # Cargamos o...	
	0x00400078	0x00f12023sw x15,0(x2)	58: sw a3, 0(sp)	
	0x0040007c	0xffffc10113addi x2,x2,-4	59: addi sp, sp, -4 # Cargamos d...	
	0x00400080	0x00012023sw x14,0(x2)	60: sw a5, 0(sp)	
	0x00400084	0xfffff60613addi x12,x12,-1	61: addi sp, sp, -4 # Cargamos a...	
	0x00400088	0x00e00333addi x6,x0,x14	62: sw a4, 0(sp)	
	0x0040008c	0x00f00733addi x14,x0,x15	63: addi a2, a2, -1	
	0x00400090	0x00600703addi x15,x0,x6	64: add il, zero, a4 # tl = aux	
	0x00400094	0xfc1ff0efjal x1,-64	65: add a4, zero, a5 # aux = destino	
			66: add a5, zero, tl # destino = aux	
			67: jal moverTorre	

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	0	0	0	268501012	268501024	268501000	3	4194384
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000efjal x1,424		
✓	0x00400054	0x00100293addi x5,x0,1	39: jal endcode	
	0x00400058	0x18564663blt x12,x5,412	48: moverTorre: addi t0, zero, 1	
	0x0040005c	0xffff1013addi x2,x2,-4	49: bit a2, t0, endmoverTorre # al...	
	0x00400060	0x00112023sw x13,0(x2)	53: addi sp, sp, -4 # Cargamos ra...	
	0x00400064	0xffff1013addi x2,x2,-4	54: sw ra, 0(sp) # Cargamos r...	
	0x00400068	0x009c12023sw x12,0(x2)	55: addi sp, sp, -4 # Cargamos a...	
	0x0040006c	0xffff1013addi x2,x2,-4	56: sw a2, 0(sp) # Cargamos o...	
	0x00400070	0x009d12023sw x13,0(x2)	57: addi sp, sp, -4 # Cargamos o...	
	0x00400074	0xffff1013addi x2,x2,-4	58: sw a3, 0(sp) # Cargamos d...	
	0x00400078	0x00f112023sw x15,0(x2)	59: addi sp, sp, -4 # Cargamos a...	
	0x0040007c	0xffff1013addi x2,x2,-4	60: sw a4, 0(sp) # Cargamos a...	
	0x00400080	0x009e12023sw x14,0(x2)	61: addi a2, a2, -1	
	0x00400084	0xffff6013addi x12,x12,-1	62: addi t1, zero, a4 # tl = aux	
	0x00400088	0x00e00333addi x6,x0,x14	64: add a4, zero, a5 # aux = desti...	
	0x0040008c	0x00f00733addi x14,x0,x15	67: add a5, zero, tl # destino = aux	
	0x00400090	0x00600073addi x15,x0,x6	68: jal moverTorre	
	0x00400094	0xfc1fffeffjal x1,-64	70:	

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffe00	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000efjal x1,424	39: jal endcode	
✓	0x00400054	0x00100293addi x5,x0,1	48: moverTorre: addi t0, zero, 1	
	0x00400058	0x18564663blt x12,x5,412	49: bit a2, t0, endmoverTorre # al...	
	0x0040005c	0xffff1013addi x2,x2,-4	53: addi sp, sp, -4 # Cargamos ra...	
	0x00400060	0x00112023sw x13,0(x2)	54: sw ra, 0(sp) # Cargamos r...	
	0x00400064	0xffff1013addi x2,x2,-4	55: addi sp, sp, -4 # Cargamos a...	
	0x00400068	0x009c12023sw x12,0(x2)	56: sw a2, 0(sp) # Cargamos o...	
	0x0040006c	0xffff1013addi x2,x2,-4	57: addi sp, sp, -4 # Cargamos o...	
	0x00400070	0x009d12023sw x13,0(x2)	58: sw a3, 0(sp) # Cargamos d...	
	0x00400074	0xffff1013addi x2,x2,-4	59: sw a5, 0(sp) # Cargamos a...	
	0x00400078	0x00f112023sw x15,0(x2)	60: addi sp, sp, -4 # Cargamos a...	
	0x0040007c	0xffff1013addi x2,x2,-4	61: sw ad, 0(sp) # Cargamos a...	
	0x00400080	0x009e12023sw x14,0(x2)	62: addi a2, a2, -1	
	0x00400084	0xffff6013addi x12,x12,-1	64: add a1, zero, a4 # tl = aux	
	0x00400088	0x00e00333addi x6,x0,x14	66: add a4, zero, a5 # aux = desti...	
	0x0040008c	0x00f00733addi x14,x0,x15	67: add a5, zero, tl # destino = aux	
	0x00400090	0x00600073addi x15,x0,x6	68: jal moverTorre	
	0x00400094	0xfc1fffeffjal x1,-64	70:	

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffe00	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000fjal x1,424		39: jal endcode
✓	0x00400054	0x00100293addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564e63blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffffc1013addi x2,x2,-4		53: addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023sw x1,0(x2)		54: sw ra, 0(sp)
	0x00400064	0xffffc1013addi x2,x2,-4		55: addi sp, sp, -4 # Cargamos a...
	0x00400068	0xffffc1023sw x12,0(x2)		56: sw a2, 0(sp)
	0x0040007c	0xffffc1013addi x2,x2,-4		57: addi sp, sp, -4 # Cargamos o...
	0x00400080	0x00012023sw x13,0(x2)		58: sw a3, 0(sp)
	0x00400084	0xffffc1013addi x2,x2,-4		59: addi sp, sp, -4 # Cargamos d...
	0x00400088	0x00012023sw x14,0(x2)		60: sw a5, 0(sp)
	0x00400092	0xfffff60613addi x12,x12,-1		61: addi sp, sp, -4 # Cargamos a...
	0x00400096	0x000e0333add x6,x0,x14		62: sw a4, 0(sp)
	0x0040009c	0x00ff0733add x14,x0,x15		64: addi a2, a2, -1
	0x00400090	0x006007b3add x15,x0,x6		66: add t1, zero, a4 # t1 = aux
	0x00400094	0xfc1ff0efjal x1,-64		67: add a4, zero, a5 # aux = destino
				68: add a5, zero, t1 # destino = aux
				70: jal moverTorre

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	0	0	0	0	0	0	268501024	268501000
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000fjal x1,424		39: jal endcode
✓	0x00400054	0x00100293addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564e63blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffffc1013addi x2,x2,-4		53: addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023sw x1,0(x2)		54: sw ra, 0(sp)
	0x00400064	0xffffc1013addi x2,x2,-4		55: addi sp, sp, -4 # Cargamos a...
	0x00400068	0xffffc1023sw x12,0(x2)		56: sw a2, 0(sp)
	0x0040007c	0xffffc1013addi x2,x2,-4		57: addi sp, sp, -4 # Cargamos o...
	0x00400080	0x00012023sw x13,0(x2)		58: sw a3, 0(sp)
	0x00400084	0xfffff60613addi x12,x12,-1		61: addi sp, sp, -4 # Cargamos d...
	0x00400088	0x000e0333add x6,x0,x14		62: addi a2, a2, -1
	0x00400092	0x00ff0733add x14,x0,x15		64: add t1, zero, a4 # t1 = aux
	0x00400096	0x006007b3add x15,x0,x6		66: add a4, zero, a5 # aux = destino
	0x00400090	0xfc1ff0efjal x1,-64		68: add a5, zero, t1 # destino = aux
				70: jal moverTorre

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	0	0	0	0	0	0	268501024	268501000
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000fjal x1,424		39: jal endcode
✓	0x00400054	0x00100293addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564e63blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffffc1013addi x2,x2,-4		53: addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023sw x1,0(x2)		54: sw ra, 0(sp)
	0x00400064	0xffffc1013addi x2,x2,-4		55: addi sp, sp, -4 # Cargamos a...
	0x00400068	0xffffc1023sw x12,0(x2)		56: sw a2, 0(sp)
	0x0040007c	0xffffc1013addi x2,x2,-4		57: addi sp, sp, -4 # Cargamos o...
	0x00400080	0x00012023sw x13,0(x2)		58: sw a3, 0(sp)
	0x00400084	0xfffff60613addi x12,x12,-1		61: addi sp, sp, -4 # Cargamos d...
	0x00400088	0x000e0333add x6,x0,x14		62: addi a2, a2, -1
	0x00400092	0x00ff0733add x14,x0,x15		64: add t1, zero, a4 # t1 = aux
	0x00400096	0x006007b3add x15,x0,x6		66: add a4, zero, a5 # aux = destino
	0x00400090	0xfc1ff0efjal x1,-64		68: add a5, zero, t1 # destino = aux
				70: jal moverTorre

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	0	0	0	0	0	0	268501024	268501000
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000ef jal x1,424		39: jal endcode
✓	0x00400054	0x00100293 addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564663 blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffff10113 addi x2,x2,-4		53: addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023sw x1,0(x2)		54: sw ra, 0(sp)
	0x00400064	0xffff10113 addi x2,x2,-4		55: addi sp, sp, -4 # Cargamos a...
	0x00400068	0x00112023sw x1,0(x2)		56: sw a2, 0(sp)
	0x00400072	0xffff10113 addi x2,x2,-4		57: addi sp, sp, -4 # Cargamos o...
	0x00400076	0x00012023sw x13,0(x2)		58: sw a3, 0(sp)
	0x0040007a	0xffff10113 addi x2,x2,-4		59: addi sp, sp, -4 # Cargamos d...
	0x0040007e	0x00012023sw x14,0(x2)		60: sw a4, 0(sp)
	0x00400080	0x000612023sw x14,x0,x14		61: addi sp, sp, -4 # Cargamos a...
	0x00400084	0xffff160613 addi x12,x12,-1		62: sw a4, 0(sp)
	0x00400088	0x00060033add x6,x0,x14		64: addi a2, a2, -1
	0x00400090	0x00060073add x14,x0,x15		66: add t1, zero, a4 # tl = aux
	0x00400094	0xfc1ff0ef jal x1,-64		67: add a4, zero, a5 # aux = destino
				68: add a5, zero, t1 # destino = aux
				70: jal moverTorre

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	0	268501024	268501000	1	4194456	268501024	268501012	268501000
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
~7fffffa0	2	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400050	0x1a8000ef jal x1,424		39: jal endcode
✓	0x00400054	0x00100293 addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564663 blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x0040005c	0xffff10113 addi x2,x2,-4		53: addi sp, sp, -4 # Cargamos ra
	0x00400060	0x00112023sw x1,0(x2)		54: sw ra, 0(sp)
	0x00400064	0xffff10113 addi x2,x2,-4		55: addi sp, sp, -4 # Cargamos a...
	0x00400068	0x00112023sw x12,0(x2)		56: sw a2, 0(sp)
	0x00400072	0xffff10113 addi x2,x2,-4		57: addi sp, sp, -4 # Cargamos o...
	0x00400076	0x00012023sw x13,0(x2)		58: sw a3, 0(sp)
	0x0040007a	0xffff10113 addi x2,x2,-4		59: addi sp, sp, -4 # Cargamos d...
	0x0040007e	0x00012023sw x14,0(x2)		60: sw a4, 0(sp)
	0x00400080	0x000612023sw x14,x0,x14		61: addi sp, sp, -4 # Cargamos a...
	0x00400084	0xffff160613 addi x12,x12,-1		62: sw a4, 0(sp)
	0x00400088	0x00060033add x6,x0,x14		64: addi a2, a2, -1
	0x00400090	0x00060073add x14,x0,x15		66: add t1, zero, a4 # tl = aux
	0x00400094	0xfc1ff0ef jal x1,-64		67: add a4, zero, a5 # aux = destino
				68: add a5, zero, t1 # destino = aux
				70: jal moverTorre

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501012	268501024	268501000	1	4194456	268501024	268501012	268501000
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
~7fffffa0	2	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400108	0x00969a63bne x13,x9,20	106: if a3:	bne a3, s1, elseif a3 # origen != ...
	0x0040010c	0xffffe8e93add1 x29,x29,-1	107: addi t4, t4, -1	# t4 = t4 - 1
	0x00400110	0x002e9313slli x6,x29,2	108: slli t1, t4, 2	# t1 = t4 * 4
	0x00400114	0x40668333sub x6,x13,x6	109: sub t1, a3, t1	# t1 = t1 - a3
	0x00400118	0x02c0006fjal x0,44	110: jal zero, load	
	0x0040011c	0x01269a63bne x13,x18,20	111: elseif a3:	bne a3, s2, else a3 # origen != ...
	0x00400120	0xfffff013add1 x30,x30,-1	112: addi t5, t5, -1	
	0x00400124	0x002f1313slli x6,x30,2	113: slli t1, t5, 2	
	0x00400128	0x40668333sub x6,x13,x6	114: sub t1, a3, t1	
	0x0040012c	0x0310006fjal x0,24	115: jal zero, load	
	0x00400130	0x01369a63bne x19,x19,20	116: else a3:	bne a3, s3, load # origen != ...
	0x00400134	0xfffff0f93add1 x31,x31,-1	117: addi t6, t6, -1	
	0x00400138	0x002f19313slli x6,x31,2	118: slli t1, t6, 2	
	0x0040013c	0x40668333sub x6,x13,x6	119: sub t1, a3, t1	
	0x00400140	0x0400006fjal x0,4	120: jal zero, load	
	0x00400144	0x00032283lw x5,0(6)	122: load:	lw t0, 0(t1)
	0x00400148	0x00032023sw x0,0(6)	123: sw zero, 0(t1)	
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5 s1, elseif a5 # destino != ...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	2	3	0	0	0	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	2	2	2	2	2	2	2	2

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023sw x0,0(6)	123: sw zero, 0(t1)	
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5 s1, elseif a5 # destino != ...
	0x00400150	0x002e9313slli x6,x29,2	126: slli t1, t4, 2	
	0x00400154	0x40678333sub x6,x15,x6	127: sub t1, a5, t1	
	0x00400158	0x001e8e93add1 x29,x29,1	128: addi t4, t4, 1	
	0x0040015c	0x02c0006fjal x0,44	129: jal zero, store	
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino != ...
	0x00400164	0x002f1313slli x6,x30,2	131: slli t1, t5, 2	
	0x00400168	0x40678333sub x6,x15,x6	132: sub t1, a5, t1	
	0x0040016c	0x001f0f13add1 x30,x30,1	133: addi t5, t5, 1	
	0x00400170	0x0180006fjal x0,24	134: jal zero, store	
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino != ...
	0x00400178	0x002f19313slli x6,x31,2	136: slli t1, t6, 2	
	0x0040017c	0x40678333sub x6,x15,x6	137: sub t1, a5, t1	
	0x00400180	0x001f0f93add1 x31,x31,1	138: addi t6, t6, 1	
	0x00400184	0x0400006fjal x0,4	139: jal zero, store	
	0x00400188	0x00532023sw x5,0(6)	141: store:	sw t0, 0(t1)
	0x0040018c	0xffffc10113add1 x2,x2,-4	145: addi sp, sp, -4	# Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	2	3	0	0	0	0	0
0x10010020	1	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	2	2	2	2	2	2	2	2

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e93l3slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x40678333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x001e8e93addi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x02c0006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006fjal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f8f93addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4	139:	jal zero, store
✓	0x00400188	0x00532023sw x5,0(x6)	141: store:	sw t0, 0(t1)
	0x0040018c	0xffffc1013addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(x2)	146:	sw ra, 0(sp)
	0x00400194	0xffffc1013addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x0001c1023sw x12,0(x2)		
	0x0040019c	0xffffc1013addi x2,x2,-4	149:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffefc0	268501012	268501024	268501000	1	4194456	268501024	268501012	268501000
0x7ffffefc4	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7ffffefc8	0	0	0	0	0	0	0	0
0x7ffffefc00	0	0	0	0	0	0	0	0
0x7ffffefc20	0	0	0	0	0	0	0	0
0x7ffffefc40	0	0	0	0	0	0	0	0
0x7ffffefc60	0	0	0	0	0	0	0	0
0x7ffffefc80	0	0	0	0	0	0	0	0
0x7ffffefc90	0	0	0	0	0	0	0	0
0x7ffffefca0	0	0	0	0	0	0	0	0
0x7ffffefcb0	0	0	0	0	0	0	0	0
0x7ffffefcc0	0	0	0	0	0	0	0	0
0x7ffffefcd0	0	0	0	0	0	0	0	0
0x7ffffefce0	0	0	0	0	0	0	0	0
0x7ffffefcf0	0	0	0	0	0	0	0	0
0x7ffffefc100	0	0	0	0	0	0	0	0
0x7ffffefc200	0	0	0	0	0	0	0	0
0x7ffffefc300	0	0	0	0	0	0	0	0
0x7ffffefc400	0	0	0	0	0	0	0	0
0x7ffffefc500	0	0	0	0	0	0	0	0
0x7ffffefc600	0	0	0	0	0	0	0	0
0x7ffffefc700	0	0	0	0	0	0	0	0
0x7ffffefc800	0	0	0	0	0	0	0	0
0x7ffffefc900	0	0	0	0	0	0	0	0
0x7ffffefca00	0	0	0	0	0	0	0	0
0x7ffffefcb00	0	0	0	0	0	0	0	0
0x7ffffefcc00	0	0	0	0	0	0	0	0
0x7ffffefcd00	0	0	0	0	0	0	0	0
0x7ffffefce00	0	0	0	0	0	0	0	0
0x7ffffefcf00	0	0	0	0	0	0	0	0
0x7ffffefc1000	0	0	0	0	0	0	0	0
0x7ffffefc2000	0	0	0	0	0	0	0	0
0x7ffffefc3000	0	0	0	0	0	0	0	0
0x7ffffefc4000	0	0	0	0	0	0	0	0
0x7ffffefc5000	0	0	0	0	0	0	0	0
0x7ffffefc6000	0	0	0	0	0	0	0	0
0x7ffffefc7000	0	0	0	0	0	0	0	0
0x7ffffefc8000	0	0	0	0	0	0	0	0
0x7ffffefc9000	0	0	0	0	0	0	0	0
0x7ffffefca000	0	0	0	0	0	0	0	0
0x7ffffefcb000	0	0	0	0	0	0	0	0
0x7ffffefcc000	0	0	0	0	0	0	0	0
0x7ffffefcd000	0	0	0	0	0	0	0	0
0x7ffffefce000	0	0	0	0	0	0	0	0
0x7ffffefcf000	0	0	0	0	0	0	0	0
0x7ffffefc10000	0	0	0	0	0	0	0	0
0x7ffffefc20000	0	0	0	0	0	0	0	0
0x7ffffefc30000	0	0	0	0	0	0	0	0
0x7ffffefc40000	0	0	0	0	0	0	0	0
0x7ffffefc50000	0	0	0	0	0	0	0	0
0x7ffffefc60000	0	0	0	0	0	0	0	0
0x7ffffefc70000	0	0	0	0	0	0	0	0
0x7ffffefc80000	0	0	0	0	0	0	0	0
0x7ffffefc90000	0	0	0	0	0	0	0	0
0x7ffffefca0000	0	0	0	0	0	0	0	0
0x7ffffefcb0000	0	0	0	0	0	0	0	0
0x7ffffefcc0000	0	0	0	0	0	0	0	0
0x7ffffefcd0000	0	0	0	0	0	0	0	0
0x7ffffefce0000	0	0	0	0	0	0	0	0
0x7ffffefcf0000	0	0	0	0	0	0	0	0
0x7ffffefc100000	0	0	0	0	0	0	0	0
0x7ffffefc200000	0	0	0	0	0	0	0	0
0x7ffffefc300000	0	0	0	0	0	0	0	0
0x7ffffefc400000	0	0	0	0	0	0	0	0
0x7ffffefc500000	0	0	0	0	0	0	0	0
0x7ffffefc600000	0	0	0	0	0	0	0	0
0x7ffffefc700000	0	0	0	0	0	0	0	0
0x7ffffefc800000	0	0	0	0	0	0	0	0
0x7ffffefc900000	0	0	0	0	0	0	0	0
0x7ffffefca00000	0	0	0	0	0	0	0	0
0x7ffffefcb00000	0	0	0	0	0	0	0	0
0x7ffffefcc00000	0	0	0	0	0	0	0	0
0x7ffffefcd00000	0	0	0	0	0	0	0	0
0x7ffffefce00000	0	0	0	0	0	0	0	0
0x7ffffefcf00000	0	0	0	0	0	0	0	0
0x7ffffefc1000000	0	0	0	0	0	0	0	0
0x7ffffefc2000000	0	0	0	0	0	0	0	0
0x7ffffefc3000000	0	0	0	0	0	0	0	0
0x7ffffefc4000000	0	0	0	0	0	0	0	0
0x7ffffefc5000000	0	0	0	0	0	0	0	0
0x7ffffefc6000000	0	0	0	0	0	0	0	0
0x7ffffefc7000000	0	0	0	0	0	0	0	0
0x7ffffefc8000000	0	0	0	0	0	0	0	0
0x7ffffefc9000000	0	0	0	0	0	0	0	0
0x7ffffefca000000	0	0	0	0	0	0	0	0
0x7ffffefcb000000	0	0	0	0	0	0	0	0
0x7ffffefcc000000	0	0	0	0	0	0	0	0
0x7ffffefcd000000	0	0	0	0	0	0	0	0
0x7ffffefce000000	0	0	0	0	0	0	0	0
0x7ffffefcf000000	0	0	0	0	0	0	0	0
0x7ffffefc10000000	0	0	0	0	0	0	0	0
0x7ffffefc20000000	0	0	0	0	0	0	0	0
0x7ffffefc30000000	0	0	0	0	0	0	0	0
0x7ffffefc40000000	0	0	0	0	0	0	0	0
0x7ffffefc50000000	0	0	0	0	0	0	0	0
0x7ffffefc60000000	0	0	0	0	0	0	0	0
0x7ffffefc70000000	0	0	0	0	0	0	0	0
0x7ffffefc80000000	0	0	0	0	0	0	0	0
0x7ffffefc90000000	0	0	0	0	0	0	0	0
0x7ffffefca0000000	0	0	0	0	0	0	0	0
0x7ffffefcb0000000	0	0	0	0	0	0	0	0
0x7ffffefcc0000000	0	0	0	0	0	0	0	0
0x7ffffefcd0000000	0	0	0	0	0	0	0	0
0x7ffffefce0000000	0	0	0	0	0	0	0	0
0x7ffffefcf0000000	0	0	0	0	0	0	0	0
0x7ffffefc100000000	0	0	0	0	0	0	0	0
0x7ffffefc200000000	0	0	0	0	0	0	0	0
0x7ffffefc300000000	0	0	0	0	0	0	0	0
0x7ffffefc400000000	0	0	0	0	0	0	0	0
0x7ffffefc500000000	0	0	0	0	0	0	0	0
0x7ffffefc600000000	0	0	0	0	0	0	0	0
0x7ffffefc700000000	0	0	0	0	0	0	0	0
0x7ffffefc800000000	0	0	0	0	0	0	0	0
0x7ffffefc900000000	0	0	0	0	0	0	0	0
0x7ffffefca00000000	0	0	0	0	0	0	0	0
0x7ffffefcb00000000	0	0	0	0	0	0	0	0
0x7ffffefcc00000000	0	0	0	0	0	0	0	0
0x7ffffefcd00000000	0	0	0	0	0	0	0	0
0x7ffffefce00000000	0	0	0	0	0	0	0	0
0x7ffffefcf00000000	0	0	0	0	0	0	0	0
0x7ffffefc1000000000	0	0	0	0	0	0	0	0
0x7ffffefc2000000000	0	0	0	0	0	0	0	0
0x7ffffefc3000000000	0	0	0	0	0	0	0	0
0x7ffffefc4000000000	0	0	0	0	0	0	0	0
0x7ffffefc5000000000	0	0	0	0	0	0	0	0
0x7ffffefc6000000000	0	0	0	0	0	0	0	0
0x7ffffefc7000000000	0	0	0	0	0	0	0	0
0x7ffffefc8000000000	0	0	0	0	0	0	0	0
0x7ffffefc9000000000	0	0	0	0	0	0	0	0
0x7ffffefca000000000	0	0	0	0	0	0	0	0
0x7ffffefcb000000000	0	0	0	0	0	0	0	0
0x7ffffefcc000000000	0	0	0	0	0	0	0	0
0x7ffffefcd000000000	0	0	0	0	0	0	0	0
0x7ffffefce000000000	0	0	0	0	0	0	0	0
0x7ffffefcf000000000	0	0	0	0	0	0	0	0
0x7ffffefc10000000000	0	0	0	0	0	0	0	0
0x7ffffefc20000000000	0	0	0	0	0	0	0	0
0x7ffffefc30000000000	0	0	0	0	0	0	0	0
0x7ffffefc40000000000	0	0	0	0	0	0	0	0
0x7ffffefc50000000000	0	0	0	0	0	0	0	0
0x7ffffefc60000000000	0	0	0	0	0	0	0	0
0x7ffffefc70000000000	0	0	0					

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400160	0x01279a63bne x15,x18,20	130:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006fjal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135:	else a5: bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f18f93addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x000532023sw x0,x0,4	139:	jal zero, store
	0x00400188	0x006532023sw x5,0(x6)	140:	store: sw t0, 0(t1)
	0x0040018c	0xffffc10113addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x0001f2023sw x1,0(0x2)	146:	sw ra, 0(sp)
	0x00400194	0xffffc10113addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x0001f2023sw x12,0(x2)	148:	sw a2, 0(sp)
	0x0040019c	0xffffc10113addi x2,x2,-4	149:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x0001e2023sw x14,0(x2)	150:	sw a4, 0(sp)
	0x004001a4	0xffffc10113addi x2,x2,-4	151:	addi sp, sp, -4 # Cargamos o...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffefc0	268501012	268501024	268501012	1	4194456	268501024	268501012	268501000
0x7ffffefc0	2	4194456	268501012	268501024	0	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0ff93addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0004006fjal x0,4	139:	jal zero, store
	0x00400188	0x000532023sw x5,0(x6)	140:	store: sw t0, 0(t1)
	0x0040018c	0xffffc10113addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x0001f2023sw x1,0(0x2)	146:	sw ra, 0(sp)
	0x00400194	0xffffc10113addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x0001f2023sw x12,0(x2)	148:	sw a2, 0(sp)
	0x0040019c	0xffffc10113addi x2,x2,-4	149:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x0001e2023sw x14,0(x2)	150:	sw a4, 0(sp)
	0x004001a4	0xffffc10113addi x2,x2,-4	151:	addi sp, sp, -4 # Cargamos o...
	0x004001a8	0x0001f2023sw x13,0(0x2)	152:	sw a3, 0(sp)
	0x004001ac	0xffffc10113addi x2,x2,-4	153:	addi sp, sp, -4 # Cargamos d...
	0x004001b0	0x0001f00613addi x15,0(x2)	154:	sw a5, 0(sp)
	0x004001b4	0xfffff60613addi x12,x12,-1	156:	addi a2, a2, -1
	0x004001b8	0x000e0033add x6,x0,x13	158:	add t1, zero, a3 # t1 = origen
	0x004001bc	0x000e006b3add x13,x0,x14	159:	add a3, zero, a4 # origen = aux
	0x004001c0	0x000600733add x14,x0,x6	160:	add a4, zero, t1 # aux = origen

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffefc0	268501024	268501000	268501012	1	4194456	268501024	268501012	268501000
0x7ffffefc0	2	4194456	268501012	268501024	0	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0ff93addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0004006fjal x0,4	139:	jal zero, store
	0x00400188	0x000532023sw x5,0(x6)	140:	store: sw t0, 0(t1)
	0x0040018c	0xffffc10113addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x0001f2023sw x1,0(0x2)	146:	sw ra, 0(sp)
	0x00400194	0xffffc10113addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x0001f2023sw x12,0(x2)	148:	sw a2, 0(sp)
	0x0040019c	0xffffc10113addi x2,x2,-4	149:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x0001e2023sw x14,0(x2)	150:	sw a4, 0(sp)
	0x004001a4	0xffffc10113addi x2,x2,-4	151:	addi sp, sp, -4 # Cargamos o...
	0x004001a8	0x0001f2023sw x13,0(0x2)	152:	sw a3, 0(sp)
	0x004001ac	0xffffc10113addi x2,x2,-4	153:	addi sp, sp, -4 # Cargamos d...
	0x004001b0	0x0001f00613addi x15,0(x2)	154:	sw a5, 0(sp)
	0x004001b4	0xfffff60613addi x12,x12,-1	156:	addi a2, a2, -1
	0x004001b8	0x000e0033add x6,x0,x13	158:	add t1, zero, a3 # t1 = origen
	0x004001bc	0x000e006b3add x13,x0,x14	159:	add a3, zero, a4 # origen = aux
	0x004001c0	0x000600733add x14,x0,x6	160:	add a4, zero, t1 # aux = origen

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffefc0	268501024	268501000	268501012	1	4194456	268501024	268501012	268501000
0x7ffffefc0	2	4194456	268501012	268501024	0	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400108	0x00969a63bne x13,x9,20	106: if a3:	bne a3, s1, elseif a3 # origen != ...
	0x0040010c	0xffffe99313addi x14,x29,-1	107: addi t4, t4, -1	# t4 = t4 - 1
	0x00400110	0x002e9313slli x6,x29,2	108: slli t1, t4, 2	# t1 = t4 * 4
	0x00400114	0x40668333sub x6,x13,x6	109: sub t1, a1, t1	# t1 = t1 - a3
	0x00400118	0x02c006f1jal x0,44	110: jal zero, load	
	0x0040011c	0x01269a63bne x13,x18,20	111: elseif a3:	bne a3, s2, else a3 # origen != ...
	0x00400120	0xfffff0f13addi x10,x30,-1	112: addi t5, t5, -1	
	0x00400124	0x002f1313slli x6,x30,2	113: slli t1, t5, 2	
	0x00400128	0x40668333sub x6,x13,x6	114: sub t1, a3, t1	
	0x00400130	0x01369a63bne x13,x19,20	115: jal zero, load	
	0x00400134	0x01fffb9f93addi x31,x31,-1	116: else a3:	bne a3, s3, load # origen != ...
	0x00400138	0x002f9313slli x6,x31,2	117: addi t6, t6, -1	
	0x0040013c	0x40668333sub x6,x13,x6	118: slli t1, t6, 2	
	0x00400140	0x040006f1jal x0,4	119: sub t1, a3, t1	
	0x00400144	0x00032023sw x5,0(x6)	120: jal zero, load	
	0x00400148	0x00032023sw x0,0(x6)	122: load:	lw t0, 0(t1)
	0x0040014c	0x00979a63bne x15,x20,20	123: if a5:	sw zero, 0(t1)

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	3	0	0	0	0	0
0x10010020	1	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

Hexadecimal Addresses **Hexadecimal Values** **ASCII**

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023sw x0,0(x6)	123: if a5:	sw zero, 0(t1)
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5, s1, elseif a5 # destino != ...
	0x00400150	0x002e9313slli x6,x29,2	126: slli t1, t4, 2	
	0x00400154	0x40668333sub x6,x15,x6	127: sub t1, a5, t1	
	0x00400158	0x001e8e93addi x29,x29,1	128: addi t4, t4, 1	
	0x0040015c	0x02c006f1jal x0,44	129: jal zero, store	
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino != ...
	0x00400164	0x002f1313slli x6,x30,2	131: slli t1, t5, 2	
	0x00400168	0x40678333sub x6,x15,x6	132: sub t1, a5, t1	
	0x0040016c	0x001f0f13addi x30,x30,1	133: addi t5, t5, 1	
	0x00400170	0x0180006fjal x0,24	134: jal zero, store	
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino != ...
	0x00400178	0x002f9313slli x6,x31,2	136: slli t1, t6, 2	
	0x0040017c	0x40678333sub x6,x15,x6	137: sub t1, a5, t1	
	0x00400180	0x0003f8f93addi x31,x31,1	138: addi t6, t6, 1	
	0x00400184	0x0004006f1jal x0,4	139: jal zero, store	
	0x00400188	0x00032023sw x0,0(x6)	140: store:	sw zero, 0(t1)
	0x0040018c	0xffffc10113addi x2,x2,-4	143: addi sp, sp, -4	# Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	3	0	0	0	0	0
0x10010020	1	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

Hexadecimal Addresses **Hexadecimal Values** **ASCII**

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e9313slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x40678333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x002f1313saddi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x0200006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13saddi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006fjal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino !=...
	0x00400178	0x002f1313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0f13saddi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4	139:	jal zero, store
	0x00400188	0x00532023sw x5,0(x6)	141: store:	sw t0, 0(t1)
	0x0040018c	0x0ffcl0113saddi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(x2)	146:	sw ra, 0(sp)
	0x00400194	0x0ffcl0113saddi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x020c0006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13saddi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006fjal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino !=...
	0x00400178	0x002f1313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0f13saddi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4	139:	jal zero, store
	0x00400188	0x00532023sw x5,0(x6)	141: store:	sw t0, 0(t1)
	0x0040018c	0x0ffcl0113saddi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(x2)	146:	sw ra, 0(sp)
	0x00400194	0x0ffcl0113saddi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x00112023sw x12,0(x2)	148:	sw a2, 0(sp)
	0x0040019c	0x0ffcl0113saddi x2,x2,-4	149:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x00112023sw x14,0(x2)	150:	sw a4, 0(sp)

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

The screenshot shows the Immunity Debugger interface with two main windows:

- Text Segment**: Shows assembly code for a function starting at address 0x00400168. The code includes instructions like sub t1, a5, t1; addi t5, t5, 1; and jal zero, store. A yellow highlight covers the instruction addi sp, sp, -4 at address 0x004001a0, which is annotated as "# Cargamos ra".
- Data Segment**: Shows a memory dump from address 0x7fffffe0 to 0x7fffff120. The dump includes values for registers Value (+0) through Value (+16). A yellow highlight covers the value 268501024 at address 0x7fffffe0, which is annotated as "# Cargamos r0".

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400170	0x0180006f jal x0,24		134: jal zero, store
	0x00400174	0x01379a63bne x5,x19,20		135: else a5: bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2		136: slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6		137: sub t1, a5, t1
	0x00400180	0x001f8f93addi x31,x31,1		138: addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4		139: jal zero, store
	0x00400188	0x00532023sw x5,(x6)		141: store: sw 0(t1)
	0x0040018c	0xfc10113addi x2,x2,-4		145: addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00512023sw x1,(x2)		146: sw ra, 0(sp)
	0x00400194	0xfc10113addi x1,x2,-4		147: addi sp, sp, -4 # Cargamos a...
	0x00400198	0x00d12023sw x2,(x2)		148: sw a2, 0(sp)
	0x0040019c	0xfc10113addi x2,x2,-4		149: addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x00a12023sw x14,0(x2)		150: sw a4, 0(sp)
	0x004001a4	0xfc10113addi x2,x2,-4		151: addi sp, sp, -4 # Cargamos o...
	0x004001a8	0x00d12023sw x13,0(x2)		152: sw a3, 0(sp)
	0x004001ac	0xfc10113addi x2,x2,-4		153: addi sp, sp, -4 # Cargamos d...
	0x004001b0	0x00f12023sw x15,0(x2)		154: sw a5, 0(sp)
	0x004001b4	0xffff6013addi x12,x12,-1		156: addi a2, a2, -1

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501024	268501000	268501012	1	4194456	268501012	268501000	268501024
0x7fffffe0	2	4194456	268501012	268501024	4194456	3	4194384	0
0x7fffff00	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	~	~	~	~	~	~	~	~

◀ ▶ current sp □ Hexadecimal Addresses □ Hexadecimal Values □ ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400054	0x00100293addi x5,x0,1		48: moverTorre: addi t0, zero, 1
	0x00400058	0x18564e63blt x12,x5,412		49: blt a2, t0, endmoverTorre # al...
	0x00400060	0x00512023sw x1,(x2)		53: addi sp, sp, -4 # Cargamos ra
	0x00400064	0xfc10113addi x2,x2,-4		54: sw ra, 0(sp)
	0x00400068	0x00d12023sw x12,(x2)		55: addi sp, sp, -4 # Cargamos a...
	0x0040006c	0xfc10113addi x2,x2,-4		56: sw a2, 0(sp)
	0x00400070	0x00a12023sw x13,0(x2)		57: addi sp, sp, -4 # Cargamos o...
	0x00400074	0xfc10113addi x2,x2,-4		59: addi sp, sp, -4 # Cargamos d...
	0x00400078	0x00f12023sw x15,0(x2)		60: sw a5, 0(sp)
	0x0040007c	0xfc10113addi x2,x2,-4		61: addi sp, sp, -4 # Cargamos a...
	0x00400080	0x00e12023sw x14,0(x2)		62: sw a4, 0(sp)
	0x00400084	0xffff6013addi x12,x12,-1		64: addi a2, a2, -1
	0x00400088	0x00000033addi x14,x14		66: addi t1, zero, a4 # t1 = aux
	0x0040008c	0x00000073addi x14,x0,15		67: addi a5, zero, a5 # aux = destino
	0x00400090	0x00000073addi x15,x0,16		68: addi a5, zero, t1 # destino = aux
	0x00400094	0xfc1ff0efjal x1, -64		70: jal moverTorre
	0x00400098	0x00012703lw x14,0(x2)		72: lw a4, 0(sp) # Sacamos au...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501024	268501000	268501012	1	4194760	268501012	268501000	268501024
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	~	~	~	~	~	~	~	~

◀ ▶ current sp □ Hexadecimal Addresses □ Hexadecimal Values □ ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400008	0x00099a63bne x13,x19,20	106: if a3:	bne a3, s3, elseif a3 # origen != ...
	0x0040000c	0xffffe893addi x29,-1	107: addi t4, t4, -1	# t4 = t4 - 1
	0x00400010	0x002e9313lli x6,x29,2	108: slli tl, t4, 2	# tl = t4 * 4
	0x00400014	0x40668333sub x6,x13,x6	109: sub tl, a3, tl	# tl = t1 - a3
	0x00400018	0x02c0006fjal x0,44	110: jal zero, load	
	0x0040001c	0x01269a63bne x13,x18,20	111: elseif a3:	bne a3, s2, else a3 # origen != ...
	0x00400020	0xfffff0f13addi x30,x30,-1	112: addi t5, t5, -1	
	0x00400024	0x002f1313lli x6,x30,2	113: slli tl, t5, 2	
	0x00400028	0x40668333sub x6,x13,x6	114: sub tl, a3, tl	
	0x0040002c	0x0180006fjal x0,24	115: jal zero, load	
	0x00400030	0x01369a63bne x13,x19,20	116: else a3:	bne a3, s3, load # origen != ...
	0x00400034	0x002e9313lli x6,x31,-1	117: addi t6, t6, -1	
	0x00400038	0x40668333sub x6,x13,x6	118: slli tl, t6, 2	
	0x0040003c	0x01e9e893addi x31,x31,2	119: sub tl, a1, tl	
	0x00400040	0x0400006fjal x0,4	120: jal zero, load	
	0x00400044	0x00032283lw x5,0(x6)	122: load:	lw t0, 0(tl)
	0x00400048	0x00032023sw x0,0(x6)	123: store:	sw zero, 0(tl)
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5, s1, elseif a5 # destino != ...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	3	0	0	2	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400048	0x00032023sw x0,0(x6)	123: if a5:	sw zero, 0(tl)
	0x0040014c	0x00979a63bne x15,x9,20	124: elseif a5:	bne a5, s1, elseif a5 # destino != ...
	0x00400150	0x002e9313lli x6,x29,2	125: slli tl, t4, 2	
	0x00400154	0x40678333sub x6,x15,x6	127: sub tl, a5, tl	
	0x00400158	0x001e9e893addi x29,x29,1	128: addi t4, t4, 1	
	0x0040015c	0x02c0006fjal x0,44	129: jal zero, store	
	0x00400160	0x01269a63bne x15,x18,20	130: else a5:	bne a5, s2, else a5 # destino != ...
	0x00400164	0x002f1313lli x6,x30,2	131: slli tl, t5, 2	
	0x00400168	0x40678333sub x6,x15,x6	132: sub tl, a5, tl	
	0x0040016c	0x001f013addi x30,x30,1	133: addi t5, t5, 1	
	0x00400170	0x01369a63bne x15,x19,20	134: jal zero, store	
	0x00400174	0x002e9313lli x6,x19,20	135: else a5:	bne a5, s3, store # destino != ...
	0x00400178	0x40678333sub x6,x31,2	136: slli tl, t6, 2	
	0x0040017c	0x001e9e893addi x31,x31,2	137: sub tl, a5, tl	
	0x00400180	0x0400006fjal x0,4	138: addi t6, t6, 1	
	0x00400184	0x00032283lw x5,0(x6)	139: jal zero, store	
	0x00400188	0x00032023sw x5,0(x6)	141: store:	sw t0, 0(tl)
	0x0040018c	0xffff10113addi x2,x2,-4	145: addi sp, sp, -4	# Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	3	0	1	2	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e9313slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x40678333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x001e8e93addi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x02c0006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x001379a63bne x15,x19,20	134:	jal zero, store
	0x00400174	0x002f9313slli x6,x31,2	135: else a5:	bne a5, s3, store # destino !=...
	0x00400178	0x40678333sub x6,x15,x6	136:	slli t1, t6, 2
	0x0040017c	0x001f8f93addi x31,x31,1	137:	sub t1, t6, t1
	0x00400180	0x04040006fjal x0,4	138:	addi t6, t6, 1
	0x00400184	0x00532023sw x5,0(x6)	139:	jal zero, store
✓	0x00400188	0x00032023sw x5,0(x6)	140: store:	sw t0, 0(t1)
	0x0040018c	0xffffc10113addi x2,x2,-4	141:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(x2)	142:	sw ra, (sp)
	0x00400194	0xffffc10113addi x2,x2,-4	143:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501000	268501012	268501024	1	4194760	268501012	268501000	268501024
0x7fffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff00	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
~0x44444444	~0	~0	~0	~0	~0	~0	~0	~0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x0040011c	0x01269a63bne x13,x18,20	111: elseif a3:	bne a3, s2, elseif a3 # origen !=...
	0x00400120	0xfffff0f13addi x30,x30,-1	112:	addi t5, t5, -1
	0x00400124	0x002f1313slli x6,x30,2	113:	slli t1, t5, 2
	0x00400128	0x40678333sub x6,x13,x6	114:	sub t1, a3, t1
	0x0040012c	0x00130006fjal x0,24	115:	jal zero, load
	0x00400130	0x01279a63bne x13,x19,20	116: else a3:	bne a3, s3, load # origen !=...
	0x00400134	0xfffff8f93addi x31,x31,-1	117:	addi t6, t6, -1
	0x00400138	0x002f9313slli x6,x31,2	118:	slli t1, t6, 2
	0x0040013c	0x40668333sub x6,x13,x6	119:	sub t1, a3, t1
	0x00400140	0x0040006fjal x0,4	120:	jal zero, load
	0x00400144	0x00032283lw x5,0(x6)	122: load:	lw t0, 0(t1)
	0x00400148	0x00032023sw x0,0(x6)	123:	sw zero, 0(t1)
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5, s1, elseif a5 # destino !=...
	0x00400150	0x002e9313slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x40678333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x001e8e93addi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x02c0006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	1	2	0	0
0x10010020	0	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
~0x44444444	~0	~0	~0	~0	~0	~0	~0	~0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023sw x0,0(16)		123: sw zero_0(tl)
	0x0040014c	0x00079a62bne x15,x19,20		125: if a5:
	0x00400150	0x002e9313slli x11,x15,x29		126: bne a5,\$1, elseif a5 # destino !=...
	0x00400154	0x40678333sub x6,x15,x2		127: slli tl,t4,2
	0x00400158	0x001e8f93addi x29,x29,1		128: sub tl,a5,tl
	0x0040015c	0x02e0006fjal x0,44		129: addi t4,t4,1
	0x00400160	0x01279a63bne x15,x18,20		130: jal zero, store
	0x00400164	0x002f1313slli x6,x30,2		131: bne a5,\$2, elseif a5 # destino !=...
	0x00400168	0x40678333sub x6,x15,x6		132: slli tl,a5,tl
	0x00400172	0x001e8f93addi x30,x30,1		133: addi t5,t5,1
	0x00400176	0x02e0006fjal x0,24		134: jal zero, store
	0x0040017d	0x01279a62bne x15,x19,20		135: else a5:
	0x0040017e	0x002f1313slli x6,x31,2		136: bne a5,\$3, elseif a5 # destino !=...
	0x0040017f	0x40678333sub x6,x15,x6		137: slli tl,a5,tl
	0x00400180	0x001e8f93addi x31,x31,1		138: addi t6,t6,1
	0x00400184	0x0040006fjal x0,4		139: jal zero, store
✓	0x00400188	0x00532023sw x5,0(16)		141: store: sw t0,0(tl)
	0x0040018c	0xfc10113addi x2,x2,-4		145: addi sp,sp,-4 # Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	1	2	0	0
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e9313slli x6,x29,2		126: slli tl,t4,2
	0x00400154	0x40678333sub x6,x15,x6		127: sub tl,a5,tl
	0x00400158	0x001e8f93addi x29,x29,1		128: addi t4,t4,1
	0x0040015c	0x02e0006fjal x0,44		129: jal zero, store
	0x00400160	0x01279a63bne x15,x18,20		130: elseif a5:
	0x00400164	0x002f1313slli x6,x30,2		131: bne a5,\$2, elseif a5 # destino !=...
	0x00400168	0x40678333sub x6,x15,x6		132: slli tl,a5,tl
	0x0040016c	0x001e8f93addi x30,x30,1		133: addi t5,t5,1
	0x00400170	0x0128006fjal x0,24		134: jal zero, store
	0x00400174	0x01279a62bne x15,x19,20		135: else a5:
	0x00400178	0x002f1313slli x6,x31,2		136: bne a5,\$3, elseif a5 # destino !=...
	0x0040017c	0x40678333sub x6,x15,x6		137: slli tl,a5,tl
	0x00400180	0x001e8f93addi x31,x31,1		138: addi t6,t6,1
	0x00400184	0x02e0006fjal x0,4		139: jal zero, store
✓	0x00400188	0x00532023sw x5,0(16)		141: store: sw t0,0(tl)
	0x0040018c	0xfc10113addi x2,x2,-4		145: addi sp,sp,-4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(16)		146: store: sw ra,0(sp)
	0x00400194	0xfc10113addi x2,x2,-4		147: addi sp,sp,-4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffe0	2	4194456	268501012	268501024	268501000	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
~7fffffa0	A1	A1	A1	A1	A1	A1	A1	A1

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
✓	0x00400054	0x00012023sw addi x5,x0,1	48:	mvoverTorre: addi t0, zero, 1
	0x00400058	0x1f6564e93l slli x29,x29,-412	49:	b1t s2, t0, zero # mvoverTorre = al...
	0x0040005c	0x00110113addi x2,x2,-4	53:	addi sp, sp, -4 # Cargamos ra...
	0x00400060	0x00110113addi x1,0(x2)	54:	sv ra, 0(sp) # Cargamos a...
	0x00400064	0x1f6564e93l slli x2,x2,-4	55:	addi sp, sp, -4 # Cargamos a...
	0x00400068	0x00110113addi x12,x2,-4	56:	sv a2, 0(sp) # Cargamos a...
	0x0040006c	0x1f6564e93l slli x2,x2,-4	57:	addi sp, sp, -4 # Cargamos a...
	0x00400070	0x00110113addi x12,x2,-4	58:	sv a3, 0(sp) # Cargamos a...
	0x00400074	0x1f6564e93l slli x13,x0(x2)	59:	addi sp, sp, -4 # Cargamos a...
	0x00400078	0x00110113addi x15,x0(x2)	60:	sv a5, 0(sp) # Cargamos a...
	0x0040007c	0x1f6564e93l slli x2,x2,-4	61:	addi sp, sp, -4 # Cargamos a...
	0x00400080	0x00110202sw addi x1,0(x2)	62:	sv a6, 0(sp) # Cargamos a...
	0x00400084	0x1f6564e93l slli x12,x2,-1	64:	addi a2, t1, -1 # aux = aux
	0x00400088	0x000e00332add x6,x0,x14	66:	add t1, zero, a4 # t1 = aux
	0x0040008c	0x000f00733add x14,x0,x15	67:	add a4, zero, a5 # aux = destino
	0x00400090	0x0006007b3add x15,x0,x6	68:	add a5, zero, t1 # destino = aux
	0x00400094	0xfc1fff0efjal x1,-64	70:	jal mvoverTorre # Sacamos au...
	0x00400098	0x000012703lw x14.0(x2)	72:	lw a4, 0(sp) # Sacamos au...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501012	268501024	268501000	1	4194760	268501012	268501000	268501012
0x7fffffe0	2	4194760	268501024	268501000		3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

◀ ▶ current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400010c	0xfffffe9e93addi x29,x29,-1	107:	addi t4, t4, -1 # t4 = t4 - 1
	0x004000110	0x0002e93l3slli x6,x13,x6	108:	slli t1, t4, 2 # t1 = t4 * 4
	0x004000114	0x40668333sub x6,x13,x6	109:	sub t1, a3, t1 # t1 = t1 - a3
	0x004000118	0x02e00061jal x0,44	110:	jal zero, load
	0x00400011c	0x00110202sw addi x3,x18,20	111:	elseif a3: bne a3, s2, else a3 # origen != ...
	0x004000120	0xfffffe9e93addi x30,x30,-1	112:	addi t5, t5, -1
	0x004000124	0x0002f13l3slli x6,x13,x6	113:	slli t1, t5, 2
	0x004000128	0x40668333sub x6,x13,x6	114:	sub t1, a3, t1
	0x00400012c	0x01800061jal x0,24	115:	jal zero, load
	0x004000130	0x01369a3bne x13,x19,20	116:	bne a3, s3, load # origen != ...
	0x004000134	0xffffff9f93addi x31,x31,-1	117:	addi t6, t6, -1
	0x004000138	0x002f93l3slli x6,x31,2	118:	slli t1, t6, 2
	0x00400013c	0x40668333sub x6,x13,x6	119:	sub t1, a3, t1
	0x004000140	0x00400061jal x0,4	120:	jal zero, load
	0x004000144	0x00032283lw x5,0(x6)	122:	load lw to, 0(t1)
	0x004000148	0x00032023sw x0,0(x6)	123:	sw zero, 0(t1)
	0x00400014c	0x00979a63bne x15,x9,20	125:	if a5: bne a5 s1, elseif a5 # destino != ...
	0x004000150	0x002f93l3slli x6,x29,2	126:	slli t1, t4, 2

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	0	2	0	0
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

◀ ▶ 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023 sw x0,0(x6)		
	0x0040014c	0x00979a63bne x15,x9,20	123:	sw zero, 0(t1)
	0x00400150	0x002e9313slli x6,x29,2	125: if a5:	bne a5 s1, elseif a5 # destino !=...
	0x00400154	0x40678333sub x6,x15,x6	126:	slli t1, t4, 2
	0x00400158	0x001e8e93addi x29,x29,1	127:	sub t1, a5, t1
	0x0040015c	0x02c0006fjal x0,44	128:	addi t4, t4, 1
	0x00400160	0x01279a63bne x15,x18,20	129:	jal zero, store
	0x00400164	0x002f1313slli x6,x30,2	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400168	0x40678333sub x6,x15,x6	131:	slli t1, t5, 2
	0x0040017c	0x001e8e93addi x30,x30,1	132:	sub t1, a5, t1
	0x0040017d	0x0180006fjal x0,44	133:	addi t5, t5, 1
	0x0040017e	0x01379a63bne x15,x19,20	134:	jal zero, store
	0x0040017f	0x002f1313slli x6,x31,2	135: else a5:	bne a5, s3, store # destino !=...
	0x00400180	0x40678333sub x6,x15,x6	136:	slli t1, t6, 2
	0x00400184	0x001f1893addi x21,x21,1	137:	sub t1, a5, t1
	0x00400188	0x0040006fjal x0,4	138:	addi t6, t6, 1
	0x0040018c	0x00532023sw x5,0(x6)	139:	jal zero, store
		0xffffc01013addi x2,x2,-4	141: store:	sw t0, 0(t1)
			145:	addi sp, sp, -4 # Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	1	0	0	0	0
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
~100101c0~	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e9313slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x40678333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x001e8e93addi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x02c0006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f1313slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f1893addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006fjal x0,44	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135: else a5:	bne a5, s3, store # destino !=...
	0x00400178	0x002f1313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f1893addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4	139:	jal zero, store
	0x00400188	0x00532023sw x5,0(x6)	141: store:	sw t0, 0(t1)
	0x0040018c	0xffffc01013addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x00112023sw x1,0(x2)	146:	sw ra, 0(sp)
		0xffffc01013addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffef0	268501024	268501000	268501012	1	4194456	268501000	268501024	268501012
0x7ffffef0	2	4194760	268501024	268501000	26850102	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
~7fffff180~	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400108	0xfffffe93bne x13,x9,20		108: if a3:
	0x0040010c	0xfffffe93addi x29,x29,-1		bne a3, s1, elseif a3 # origen != ...
	0x00400110	0x002e9313slli x6,x29,2		109: addi t4, t4, -2 # t1 = t4 - 4
	0x00400114	0x4068333sub x6,x29,2		110: slli t1, t4, 2 # t1 = t4 * 4
	0x00400118	0x02e9006fjal x0,44		111: sub t1, a3, t1 # t1 = t1 - a3
	0x0040011c	0x01269a63bne x13,x18,20		112: jal zero, load
	0x00400120	0xfffff013addi x30,x30,-1		113: bne a3, s2, elseif a3 # origen != ...
	0x00400124	0x002f1313slli x6,x30,2		114: addi t5, t5, -1
	0x00400128	0x40698333sub x6,x13,x6		115: slli t1, t5, 2
	0x0040012c	0x0180006fjal x0,24		116: sub t1, a3, t1 # t1 = a3 - t1
	0x00400130	0x01369a63bne x13,x19,20		117: jal zero, load
	0x00400134	0xfffff893addi x31,x31,-1		118: addi t6, t6, -1
	0x00400138	0x001fb893addi x31,x31,2		119: slli t1, t6, 2
	0x0040013c	0x4068333sub x6,x31,x6		120: sub t1, a3, t1
	0x00400140	0x0400006fjal x0,4		121: jal zero, load
	0x00400144	0x00322382lw x5,(x6)		122: load: lv t0, 0(t1)
	0x00400148	0x00032023sw x0,(x6)		123: sw zero, 0(t1)
	0x0040014c	0x00979a63bne x15,x9,20		125: if a5:

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	1	0	0	0	0	0
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023sw x0,0(x6)		123: sw zero, 0(t1)
	0x0040014c	0x00979a63bne x15,x9,20		125: if a5:
	0x00400150	0x002e9313slli x6,x29,2		bne a5 s1, elseif a5 # destino != ...
	0x00400154	0x4068333sub x6,x15,x6		126: slli t1, t4, 2
	0x00400158	0x001eb893addi x29,x29,1		127: sub t1, a5, t1
	0x0040015c	0x02e9006fjal x0,44		128: addi t4, t4, 1
	0x00400160	0x002f1313slli x6,x18,20		129: jal zero, store
	0x00400164	0x002f1313slli x6,x30,2		130: elseif a5:
	0x00400168	0x4068333sub x6,x15,x6		bne a5 s2, elseif a5 # destino != ...
	0x0040016c	0x001f013addi x30,x30,1		131: slli t1, t5, 2
	0x00400170	0x0180006fjal x0,24		132: sub t1, a5, t1
	0x00400174	0x01379a63bne x15,x19,20		133: addi t5, t5, 1
	0x00400178	0x002f9313slli x6,x31,2		134: jal zero, store
	0x0040017c	0x40678333sub x6,x15,x6		135: else a5:
	0x00400180	0x001fb893addi x31,x31,1		bne a5 s3, store # destino != ...
	0x00400184	0x0400006fjal x0,4		136: slli t1, t6, 2
	0x00400188	0x00032023sw x5,0(x6)		137: sub t1, a5, t1
	0x0040018c	0xfc10113addi x2,x2,-4		138: addi t6, t6, 1

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	1	0	0	0	0	2
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x00f78333slli x6,x29,2	126:	slli t1, t4, 2
	0x00400154	0x00f78333sub x6,x15,x6	127:	sub t1, a5, t1
	0x00400158	0x001a893addi x29,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x02c0006jal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130:	bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f113slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006jal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135:	bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0f13addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x000532023sw x5,(x6)	139:	jal zero, store
✓	0x00400188	0xfc10113addi x2,x3,-4	140:	store: sw t0, 0(t1)
	0x0040018c	0xfc10113addi x2,x2,-4	141:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x001l2023sw x1,0(x2)	142:	sw ra, 0(sp)
	0x00400194	0xfc10113addi x2,x2,-4	143:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x001l2023sw x12,0(x2)	144:	sw a2, 0(sp)
	0x0040019c	0xfc10113addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x008e12023sw x14,0(x2)	146:	sw a4, 0(sp)
	0x004001a4	0xfc10113addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffef0	2	4194760	268501024	268501000	268501012	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400160	0x01279a63bne x15,x18,20	130:	elseif a5: bne a5, s2, else a5 # destino !=...
	0x00400164	0x002f113slli x6,x30,2	131:	slli t1, t5, 2
	0x00400168	0x40678333sub x6,x15,x6	132:	sub t1, a5, t1
	0x0040016c	0x001f0f13addi x30,x30,1	133:	addi t5, t5, 1
	0x00400170	0x0180006jal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135:	bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2	136:	slli t1, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub t1, a5, t1
	0x00400180	0x001f0f13addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x000532023jal x0,4	139:	jal zero, store
✓	0x00400188	0x00532023sw x5,(x6)	140:	store: sw t0, 0(t1)
	0x0040018c	0xfc10113addi x2,x2,-4	141:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x001l2023sw x1,0(x2)	142:	sw ra, 0(sp)
	0x00400194	0xfc10113addi x2,x2,-4	143:	addi sp, sp, -4 # Cargamos a...
	0x00400198	0x001l2023sw x12,0(x2)	144:	sw a2, 0(sp)
	0x0040019c	0xfc10113addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos a...
	0x004001a0	0x008e12023sw x14,0(x2)	146:	sw a4, 0(sp)
	0x004001a4	0xfc10113addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7ffffef0	2	4194760	268501024	268501000	268501012	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0
0x7fffff1c0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x0400174	0x01279a3bne x15,x19,20		135: else a5: bne a5,s3, store # destino != ...
	0x0400178	0x002f5213elli x6,x31,2		136: elli t16,t16,2
	0x040017c	0x40578333sub x6,x15,x6		137: sub t1,a5,t1
	0x0400180	0x001ff9f93addi x31,x31,1		138: addi t6,t6,1
	0x0400184	0x0040006fjal x0,4		139: jal zero, store
✓	0x0400188	0x00532023add x5,0,x6		141: store: sw t0,0(t1)
	0x040018c	0xffffc1013addi x2,x2,-4		145: addi sp,sp,-4 # Cargamos ra
	0x0400190	0x00112023add x1,0,x2		146: sw ra,0(sp)
	0x0400194	0xffffc1013addi x2,x2,-4		147: addi sp,sp,-4 # Cargamos a...
	0x0400198	0x00112023add x12,0,x2		148: sw a2,0(sp)
	0x040019c	0xffffc1013addi x2,x2,-4		149: addi sp,sp,-4 # Cargamos a...
	0x04001a0	0x000112023add x14,x14,-4		150: sw a4,0(sp)
	0x04001a4	0xffffc1013addi x2,x2,-4		151: addi sp,sp,-4 # Cargamos o...
	0x04001a8	0x000112023sw x13,0(x2)		152: sw a3,0(sp)
	0x04001ac	0xffffc1013addi x2,x2,-4		153: addi sp,sp,-4 # Cargamos d...
	0x04001b0	0x000112023sw x15,0(x2)		154: sw a5,0(sp)
	0x04001b4	0xfffff6013addi x12,x12,-1		156: addi a2,a2,-1
	0x04001b8	0x000d0333add x6,x0,x13		158: add t1,zero,a3 # tl = origen

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501000	268501012	268501024	1	4194456	268501024	268501012	268501000
0x7fffffe0	2	4194760	268501024	268501000	268501012	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
✓	0x04000054	0x00010293addi x5,x0,1		48: moverTorre: addi t0,zero,1
	0x04000058	0x19864e63hlt x13,x5,412		49: blt a2,to,endmoverTorre # al...
	0x0400005c	0x00112023addi x2,x2,-4		53: addi sp,sp,-4 # Cargamos ra
	0x04000060	0x000112023sw x1,0(x2)		54: sw ra,0(sp)
	0x04000064	0x000112023addi x2,x2,-4		55: addi sp,sp,-4 # Cargamos a...
	0x04000068	0x00012023sw x12,0(x2)		56: sw a2,0(sp)
	0x0400006c	0xffff1013addi x2,x2,-4		57: addi sp,sp,-4 # Cargamos o...
	0x04000070	0x000112023sw x13,0(x2)		58: sw a3,0(sp)
	0x04000074	0xffff1013addi x2,x2,-4		59: addi sp,sp,-4 # Cargamos d...
	0x04000078	0x000112023sw x15,0(x2)		60: sw a5,0(sp)
	0x0400007c	0xffff1013addi x2,x2,-4		61: addi sp,sp,-4 # Cargamos a...
	0x04000080	0x00012023sw x14,0(x2)		62: sw a4,0(sp)
	0x04000084	0xfffff6013addi x12,x12,-1		64: addi a2,a2,-1
	0x04000088	0x0006013add x6,x0,x14		66: add t1,zero,a4 # tl = aux
	0x0400009c	0x000f00733add x14,x0,x15		67: add a4,zero,a5 # aux = destino
	0x04000090	0x0006007b3add x15,x0,x6		68: add a5,zero,t1 # destino = aux
	0x04000094	0xfc1fff0efjal x1,-64		70: jal moverTorre
	0x04000098	0x00012703lw x14,0(x2)		72: lw a4,0(sp) # Sacamos au...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501000	268501012	268501024	1	4194760	268501024	268501012	268501000
0x7fffffe0	2	4194760	268501024	268501000	268501012	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
0x7fffff1a0	0	0	0	0	0	0	0	0

current sp Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x004001c	0x01269a63bne x13,x18,20	111: elseif a3:	bne a3, s2, elseif a3 # origen != ...
	0x00400120	0xfffff0f13addi x30,x30,-1	112: addi t5, t5, -1	
	0x00400124	0x002f1313slli x6,x30,2	113: slli t1, t5, 2	
	0x00400128	0x40678333sub x6,x13,x6	114: sub t1, a3, t1	
	0x0040012c	0x01369a63jal x0,24	115: jal zero, load	
	0x00400130	0x01369a63bne x13,x19,20	116: else a3:	bne a3, s3, load # origen != ...
	0x00400134	0xfffff8f93addi x2l,x31,-1	117: addi t6, t6, -1	
	0x00400138	0x002f9313slli x6,x31,2	118: slli t1, t6, 2	
	0x0040013c	0x40668333sub x6,x13,x6	119: sub t1, a3, t1	
	0x00400140	0x0040006fjal x0,4	120: jal zero, load	
	0x00400144	0x00032283lw x5,(x6)	122: load: [w to, 0(t1)]	
	0x00400148	0x00032023sw x0,(x6)	123: sw zero, 0(t1)	
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5 s1, elseif a5 # destino != ...
	0x00400150	0x00269313slli x6,x29,2	126: slli t1, t4, 2	
	0x00400154	0x40678333sub x6,x15,x6	127: sub t1, a5, t1	
	0x00400158	0x001e8e93addi x29,x29,1	128: addi t4, t4, 1	
	0x0040015c	0x02c0006fjal x0,44	129: jal zero, store	
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, elseif a5 # destino != ...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	0	0	0	2
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

← → 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400148	0x00032023sw x0,0(x6)	123: sw zero, 0(t1)	
	0x0040014c	0x00979a63bne x15,x9,20	125: if a5:	bne a5 s1, elseif a5 # destino != ...
	0x00400150	0x00269313slli x6,x29,2	126: slli t1, t4, 2	
	0x00400154	0x40678333sub x6,x15,x6	127: sub t1, a5, t1	
	0x00400158	0x001e8e93addi x29,x29,1	128: addi t4, t4, 1	
	0x0040015c	0x02c0006fjal x0,44	129: jal zero, store	
	0x00400160	0x01279a63bne x15,x18,20	130: elseif a5:	bne a5, s2, elseif a5 # destino != ...
	0x00400164	0x002f1313slli x6,x30,2	131: slli t1, t5, 2	
	0x00400168	0x40678333sub x6,x15,x6	132: sub t1, a5, t1	
	0x0040016c	0x001f0f13addi x30,x30,1	133: addi t5, t5, 1	
	0x00400170	0x001f0f13jal x0,24	134: jal zero, store	
	0x00400174	0x00032023sw x19,0(x6)	135: else a5:	bne a5 s3, store # destino != ...
	0x00400178	0x002f9313slli x6,x31,2	136: slli t1, t6, 2	
	0x0040017c	0x40678333sub x6,x15,x6	137: sub t1, a5, t1	
	0x00400180	0x001f8f93addi x31,x31,1	138: addi t6, t6, 1	
	0x00400184	0x0040006fjal x0,4	139: jal zero, store	
	0x00400188	0x00532023sw x5,0(x6)	141: store:	sw t0, 0(t1)
	0x0040018c	0xffff10113addi x2,x2,-4	145: addi sp, sp, -4	# Cargamos ra

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	0	0	0	0	0	0	2
0x10010020	3	0	0	0	0	0	0	0
0x10010040	0	0	0	0	0	0	0	0
0x10010060	0	0	0	0	0	0	0	0
0x10010080	0	0	0	0	0	0	0	0
0x100100a0	0	0	0	0	0	0	0	0
0x100100c0	0	0	0	0	0	0	0	0
0x100100e0	0	0	0	0	0	0	0	0
0x10010100	0	0	0	0	0	0	0	0
0x10010120	0	0	0	0	0	0	0	0
0x10010140	0	0	0	0	0	0	0	0
0x10010160	0	0	0	0	0	0	0	0
0x10010180	0	0	0	0	0	0	0	0
0x100101a0	0	0	0	0	0	0	0	0
0x100101c0	0	0	0	0	0	0	0	0
0x100101e0	0	0	0	0	0	0	0	0

← → 0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400150	0x002e9313slli x6,x29,2	126:	slli tl, t4, 2
	0x00400151	0x40578333slli x6,x15,x6	127:	sub tl, a5, tl
	0x00400158	0x00010000addi x15,x15,x29,1	128:	addi t4, t4, 1
	0x0040015c	0x0200006fjal x0,44	129:	jal zero, store
	0x00400160	0x01279a63bne x15,x18,20	130:	elseif a5:
	0x00400164	0x002f1313slli x6,x30,2	131:	bne a5, s2, else a5 # destino !=...
	0x00400168	0x40678333sub x6,x15,x6	132:	slli tl, t5, 2
	0x0040016c	0x001f0f13addi x30,x30,1	133:	sub tl, a5, t5, 1
	0x00400170	0x0180006fjal x0,24	134:	jal zero, store
	0x00400174	0x01379a63bne x15,x19,20	135:	bne a5, s3, store # destino !=...
	0x00400178	0x002f9313slli x6,x31,2	136:	slli tl, t6, 2
	0x0040017c	0x40678333sub x6,x15,x6	137:	sub tl, a5, tl
	0x00400180	0x001ffbf93addi x31,x31,1	138:	addi t6, t6, 1
	0x00400184	0x0040006fjal x0,4	139:	jal zero, store
	0x00400188	0x00532023sw x5,0(x6)	141:	store: sw t0, 0(t1)
	0x0040018c	0xffff1013addi x2,x2,-4	145:	addi sp, sp, -4 # Cargamos ra
	0x00400190	0x000112023sw x1,0(x2)	146:	sw ra, 0(sp) # Cargamos a...
	0x00400194	0xffff1013addi x2,x2,-4	147:	addi sp, sp, -4 # Cargamos a...

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501012	268501024	268501000	1	4194760	268501024	268501012	268501000
0x7fffffe0	2	4194760	268501024	268501000	268501024	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
n=44441-n	n	n	n	n	n	n	n	n

◀ ▶ current sp □ Hexadecimal Addresses Hexadecimal Values ASCII

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x004001b4	0xffff160613addi x12,x12,-1	156:	addi a2, a2, -1
	0x004001b5	0x00010000addi x6,x0,x13	158:	add tl, zero, a3 # tl = origen
	0x004001b6	0x000000d0add x13,x14	159:	add a3, zero, a4 # origen = aux
	0x004001c0	0x000000733add x14,x14,x5	160:	add a4, zero, tl # aux = origen
	0x004001c4	0x09ffff0efjal x15,x368	162:	jal moverTorre
	0x004001c8	0x001f2783lw x15,(x2)	164:	lw a5, 0(sp) # Sacamos de...
	0x004001cc	0x004010113addi x2,x2,4	165:	addi sp, sp, 4
	0x004001d0	0x00012663lw x13,(x2)	166:	lw a3, 0(sp) # Sacamos or...
	0x004001d4	0x004010113addi x2,x2,4	167:	addi sp, sp, 4
	0x004001d8	0x000012703lw x14,(x2)	168:	lw a4, 0(sp) # Sacamos aux
	0x004001dc	0x004010113addi x2,x2,4	169:	addi sp, sp, 4
	0x004001e0	0x00012603lw x12,(x2)	170:	lw a2, 0(sp) # Sacamos al...
	0x004001e4	0x004010113addi x2,x2,4	171:	addi sp, sp, 4
	0x004001e8	0x000012083lw x1,(x2)	172:	lw ra, 0(sp) # Sacamos ra
	0x004001f0	0x004010113addi x2,x2,4	173:	addi sp, sp, 4
	0x004001f4	0x00000087jal x1,x1,x0	175:	jalr ra
	0x004001f8	0x000000013addi x0,x0,0	176:	endmoverTorre: jalr ra
			178:	endcode: nop

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x7fffffc0	268501024	268501000	268501012	1	4194760	268501024	268501012	268501000
0x7fffffe0	2	4194760	268501024	268501000	268501024	3	4194384	0
0x7fffff000	0	0	0	0	0	0	0	0
0x7fffff020	0	0	0	0	0	0	0	0
0x7fffff040	0	0	0	0	0	0	0	0
0x7fffff060	0	0	0	0	0	0	0	0
0x7fffff080	0	0	0	0	0	0	0	0
0x7fffff0a0	0	0	0	0	0	0	0	0
0x7fffff0c0	0	0	0	0	0	0	0	0
0x7fffff0e0	0	0	0	0	0	0	0	0
0x7fffff100	0	0	0	0	0	0	0	0
0x7fffff120	0	0	0	0	0	0	0	0
0x7fffff140	0	0	0	0	0	0	0	0
0x7fffff160	0	0	0	0	0	0	0	0
0x7fffff180	0	0	0	0	0	0	0	0
n=44441-n	n	n	n	n	n	n	n	n

◀ ▶ current sp □ Hexadecimal Addresses Hexadecimal Values ASCII

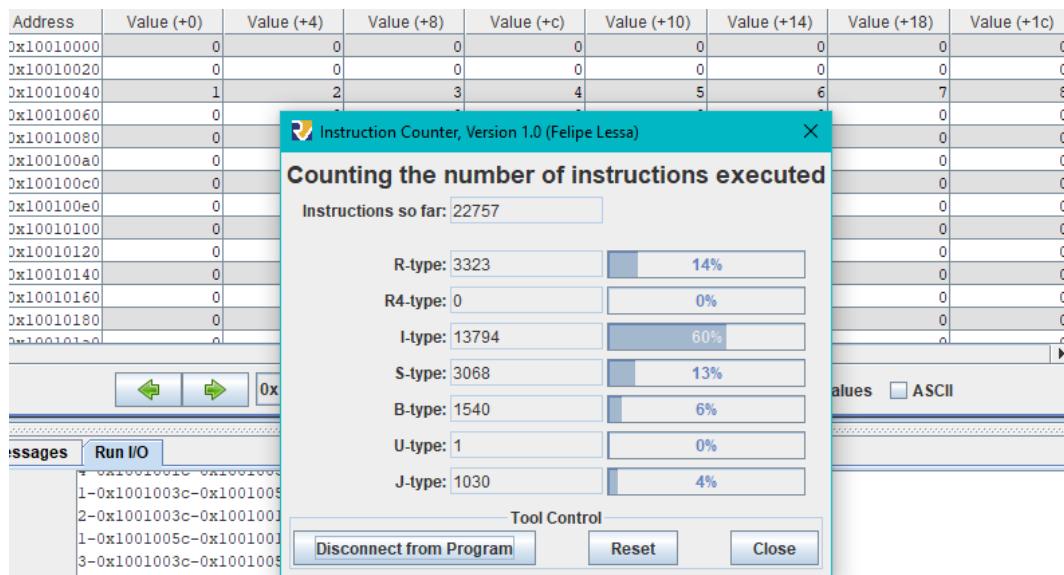
Instruction Count y porcentaje de instrucciones (tipo R, I y J para 8 discos)

A continuación, observaremos que conectamos el *Instruction Counter* a nuestro programa de Torres de Hanoi el cual nos permitirá determinar la cantidad de instrucciones utilizadas para el programa además del número y porcentaje de cada tipo de instrucción de acuerdo con el total de instrucciones. En este caso lo que nos interesa es realizarlo utilizando el valor de 8 discos ($s_0 = 8$) y únicamente para los tipos R, I y J.

Quitando las instrucciones de los otros tipos que son R4, S, B y U tendríamos lo siguiente:

Total de Instrucciones (R, I y J)		18,147
Tipo	Cantidad	Porcentaje
Tipo R	3,323	18.31%
Tipo I	13,794	76.01%
Tipo J	1,030	5.68%
TOTAL	18,147	100%

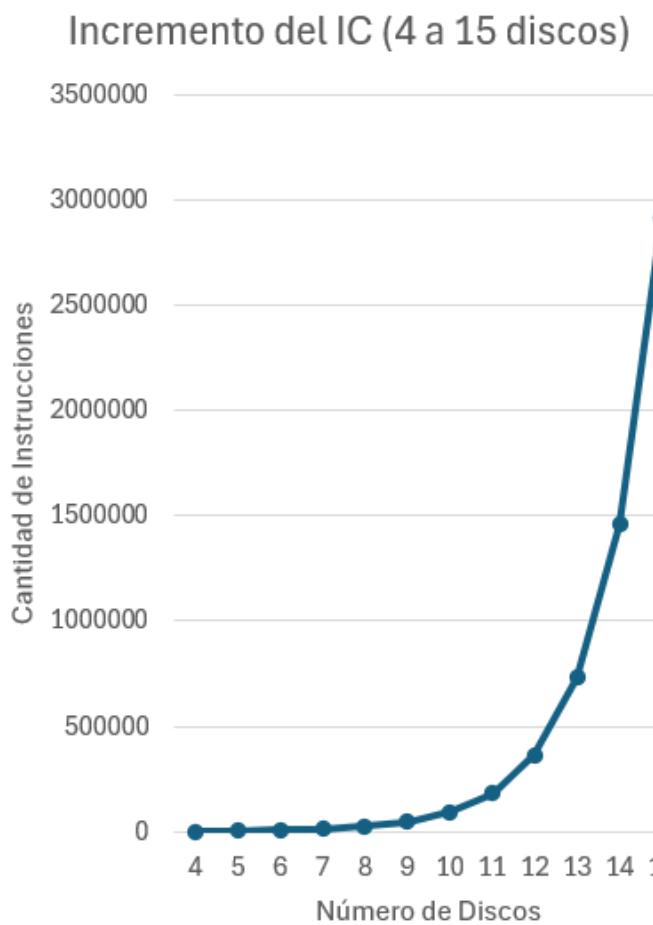
La tabla anterior muestra la cantidad de instrucciones y porcentaje únicamente tomando en cuenta las instrucciones tipo R, I y J y tomando el total de instrucciones únicamente de estas antes mencionadas. En la imagen siguiente se muestra el total de todas las instrucciones utilizadas proveídas por el *Instruction Counter* para 8 discos.



Gráfica del incremento de IC para los casos de 4 a 15 discos

En este apartado, mostraremos una gráfica la cual muestra el incremento del *Instruction Counter* tomando en cuenta los casos de 4 discos hasta 15 discos. En teoría, esta grafica tendría que visualizarse como una gráfica cuadrática debido a que la complejidad del algoritmo recursivo de las Torres de Hanoi es de 2^n .

Discos	Cantidad de Instrucciones
4	1377
5	2806
6	5659
7	11360
8	22757
9	45546
10	91119
11	182260
12	364537
13	729086
14	1458179
15	2916360



Conclusiones

- Luis Bravo: El desarrollo de la práctica me pareció realmente interesante y un poco complejo al inicio, sobre todo por mi falta de conocimiento de la implementación del algoritmo de Torres de Hanoi en un algoritmo de programación. Definitivamente fue un reto para ambos hacer este código debido a que se nos presentaron varios problemas a lo largo del código, pero considero que el que lo hayamos hecho paso por paso y mostrando la impresión de que disco se tenía que mover de donde a donde nos ayudó a entender sobre todo el cómo se movía todo. Creo que es bueno aprender este tipo de algoritmos recursivos y sobre todo la implementación en un lenguaje como lo es el ensamblador ya que nos hacen pensar si o si y conocer el cómo es que se mueve todo en memoria y stack, y el poder debuggear nos da una visión distinta de lo que hacemos. En general me

gusto y también realizar la gráfica del comportamiento recursivo nos da a entender la complejidad de este algoritmo y como puede llegar a comportarse dependiendo de la entrada.

- Horacio Hernández: Si bien implementar este algoritmo en un lenguaje de alto nivel ya sea Java o C no es tan complejo, al tener que implementarlo en Assembly fue un reto porque leer y guardar los discos del arreglo inicial u origen nos costó trabajo. Yo lo que le veo de beneficio es que vemos y entendemos cómo funcionan las cosas a muy bajo nivel cuando escribimos un algoritmo o programa en otro idioma. También pude entender mejor el concepto de recursión y comprender su utilidad en la computación. Es necesario yo pienso conocer cómo funcionan las cosas a este nivel porque te da buenos fundamentos en cuanto a lógica computacional porque entiendes como ejecutan instrucciones y manejan la memoria. Creo que esta práctica nos aportó mucho a pesar de su dificultad, pero me gusto honestamente.