

# Relatório 09

## Programa 17

C:\Users\Lu\Documents\Faculdade\AC\Relatório9\programa17.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0
\$at	1	0
\$v0	2	10
\$v1	3	0
\$a0	4	0
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	268500992
\$t1	9	268500992
\$t2	10	2
\$t3	11	0
\$t4	12	0
\$t5	13	0
\$t6	14	0
\$t7	15	0
\$s0	16	217
\$s1	17	3
\$s2	18	1
\$s3	19	9
\$s4	20	81
\$s5	21	27
\$s6	22	243
\$s7	23	216
\$s8	24	0
\$t9	25	0
\$k0	26	0
\$k1	27	0
\$gp	28	268468224
\$sp	29	2147479548
\$fp	30	0
\$ra	31	0
pc		4194428
hi		0
lo		243

Mars Messages Run I/O

Clear -- program is finished running --

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## Programa 18

C:\Users\Lu\Documents\Faculdade\AC\Relatório9\programa18.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0
\$at	1	0
\$v0	2	10
\$v1	3	0
\$a0	4	0
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	268500992
\$t1	9	1
\$t2	10	0
\$t3	11	0
\$t4	12	0
\$t5	13	0
\$t6	14	0
\$t7	15	0
\$s0	16	255
\$s1	17	-4
\$s2	18	16
\$s3	19	256
\$s4	20	0
\$s5	21	0
\$s6	22	0
\$s7	23	0
\$t8	24	0
\$t9	25	0
\$k0	26	0
\$k1	27	0
\$gp	28	268468224
\$sp	29	2147479548
\$fp	30	0
\$ra	31	0
pc		4194392
hi		0
lo		256

Mars Messages Run I/O

Clear -- program is finished running --

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## Programa 19

C:\Users\Lu\Documents\Faculdade\AC\I\Relatório9\programa19.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x2010186a	addi \$t6,\$0,0x0000186a	7: addi \$s0,\$zero,0x186A #numero x(parte)
	0x00400004	0x00108200	sll \$t6,\$t6,0x00000008	8: sll \$s0,\$s0,8 #numero x inteiro
	0x00400008	0x20111388	addi \$t7,\$0,0x00001388	9: addi \$s1,\$zero,0x1388 #numero y(parte)
	0x0040000c	0x00118900	sll \$t7,\$t7,0x00000004	10: sll \$s1,\$s1,4 #numero y inteiro
	0x00400010	0x201261a8	addi \$t8,\$0,0x000061a8	11: addi \$s2,\$zero,0x61a8 #numero z(parte)
	0x00400014	0x00129100	sll \$t8,\$t8,0x00000004	12: sll \$s2,\$s2,4 #numero z inteiro
	0x00400018	0x02300018	mult \$t7,\$t6	14: mult \$s1,\$s0 #x*y
	0x0040001c	0x00004012	mflo \$s	15: mflo \$t0 #t0=x*y
	0x00400020	0x0113001a	div \$s,\$t6	16: div \$t0,\$s3 #t0/z
	0x00400024	0x00004812	mflo \$s	17: mflo \$t1
	0x00400028	0x2002000a	addi \$t2,\$0,0x0000000a	19: addi \$v0,\$zero,10 #chamar o handler 10
	0x0040002c	0x0000000c	syscall	20: syscall #chamar sistema operacional

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010020	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010040	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010060	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010080	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x100100a0	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x100100c0	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000

Mars Messages Run I/O

Clear

-- program is finished running --

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0x00000000
\$at	1	0x00000000
\$v0	2	0x0000000a
\$v1	3	0x00000000
\$a0	4	0x00000000
\$a1	5	0x00000000
\$a2	6	0x00000000
\$a3	7	0x00000000
\$t0	8	0xcd650000
\$t1	9	0xcd650000
\$t2	10	0x00000000
\$t3	11	0x00000000
\$t4	12	0x00000000
\$t5	13	0x00000000
\$t6	14	0x00000000
\$t7	15	0x00000000
\$s0	16	0x00186a00
\$s1	17	0x00138800
\$s2	18	0x00061a80
\$s3	19	0x00000000
\$s4	20	0x00000000
\$s5	21	0x00000000
\$s6	22	0x00000000
\$s7	23	0x00000000
\$s8	24	0x00000000
\$t9	25	0x00000000
\$t0	26	0x00000000
\$k1	27	0x00000000
\$gp	28	0x10008000
\$sp	29	0x7ffffcfc
\$fp	30	0x00000000
\$ra	31	0x00000000
pc		0x00400030
hi		0x0000001d
lo		0xcd650000

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## Programa 20

C:\Users\Lu\Documents\Faculdade\AC\I\Relatório9\programa20.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed 26 inst/sec

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20100064	addi \$t6,\$0,100	9: addi \$s0,\$zero,100 #flag=100
	0x00400004	0x20111000	addi \$t7,\$0,0	10: addi \$s1,\$zero,0 #aux=0
	0x00400008	0x20081001	addi \$s,\$0,4097	11: addi \$t0,\$zero,0x1001 #ir para o primeiro endereço
	0x0040000c	0x00084400	sll \$s,\$t6,16	12: sll \$t0,\$t0,16 #shift para o endereço ficar 0x10010000
	0x00400010	0xad110000	sw \$t7,0(\$t0)	13: sw \$s1,0(\$t0) #armazenar 0
	0x00400014	0x22310001	addi \$t7,\$t7,1	15: addi \$s1,\$s1,1 #aux=aux+1
	0x00400018	0xad1100c8	sw \$t7,200(\$t0)	16: sw \$s1,200(\$t0) #armazenar numero
	0x0040001c	0x22310001	addi \$t7,\$t7,1	17: addi \$s1,\$s1,1 #aux=aux+1
	0x00400020	0x21080004	addi \$s,\$t6,4	18: addi \$t0,\$t0,4 #próximo endereço
	0x00400024	0xad110000	sw \$t7,0(\$t0)	19: sw \$s1,0(\$t0) #armazenar proximo numero
	0x00400028	0x1630ffff	bne \$t7,\$t6,-6	20: bne \$s1,\$s0,loop #continuar ate fim do loop
	0x0040002c	0x2002000a	addi \$t2,\$0,10	22: addi \$v0,\$zero,10 #chamar o handler 10
	0x00400030	0x0000000c	syscall	23: syscall #chamar sistema operacional

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0	2	4	6	8	10	12	14
0x10010020	16	18	20	22	24	26	28	30
0x10010040	32	34	36	38	40	42	44	46
0x10010060	48	50	52	54	56	58	60	62
0x10010080	64	66	68	70	72	74	76	78
0x100100a0	80	82	84	86	88	90	92	94
0x100100c0	96	98	100	3	5	7	9	11
0x100100e0	13	15	17	19	21	23	25	27
0x10010100	29	31	33	35	37	39	41	43
0x10010120	45	47	49	51	53	55	57	59
0x10010140	61	63	65	67	69	71	73	75
0x10010160	77	79	81	83	85	87	89	91
0x10010180	93	95	97	99	0	0	0	0

Mars Messages Run I/O

Clear

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0
\$at	1	0
\$v0	2	10
\$v1	3	0
\$a0	4	0
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	268501192
\$t1	9	0
\$t2	10	0
\$t3	11	0
\$t4	12	0
\$t5	13	0
\$t6	14	0
\$t7	15	0
\$s0	16	100
\$s1	17	100
\$s2	18	0
\$s3	19	0
\$s4	20	0
\$s5	21	0
\$s6	22	0
\$s7	23	0
\$s8	24	0
\$t9	25	0
\$t0	26	0
\$k1	27	0
\$gp	28	268468224
\$sp	29	2147479545
\$fp	30	0
\$ra	31	0
pc		4194356
hi		0
lo		0

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ARQUIVO PÁGINA INICIAL INSERIR DADOS REVISÃO EXIBIR Diga-me o que você deseja fazer

	A	B	C	D	E	F	G	H	I	J
1	Operações	Número	Porcentagem							
2	ALU	5+(100)3=305	50,30%							
3	MEM	1+ (100)2=201	33,16%							
4	DESVIO	100	16,50%							
5	TOTAL	606								
6										
7										
8										

Planilha1

AJUDAR A APERFEIÇOAR O OFFICE

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## Programa 21

C:\Users\Lu\l\Desktop\programa21.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed 26 inst/sec

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20081001	addi \$t0,\$zero,0x1001	#ir para o primeiro endereço
	0x00400004	0x00084400	sll \$t0,\$t0,16	#shift para o endereço ficar 0x10010000
	0x00400008	0x00084820	add \$t1,\$zero,\$t0	#armazenar o endereço de t0
	0x0040000c	0x8d100000	lw \$s0,0(\$t0)	#carregar numero na primeira posição
	0x00400010	0x8d110004	lw \$s1,4(\$t0)	#carregar numero da segunda posição
	0x00400014	0x20120000	addi \$t2,\$zero,0	#aux=0
	0x00400018	0x00105020	add \$t2,\$zero,\$s0	#t2=x
	0x0040001c	0x2231ffff	addi \$t1,\$s1,-1	#s1=s1-1
	0x00400020	0x01500018	mult \$t2,\$s0	#x*s1
	0x00400024	0x00008012	mflo \$t0	#s3=s1
	0x00400028	0x22520001	addi \$t2,\$s2,1	#aux=aux+1
	0x0040002c	0x1651ffff	bne \$t2,\$s1,loop	#se aux não for menor que y
	0x00400030	0xad100008	sw \$s0,8(\$t0)	#armazenar valor do resultado na terceira posição
	0x00400034	0x2002000a	addi \$v0,\$zero,10	#chamar o handler 10
	0x00400038	0x0000000c	syscall	#chamar sistema operacional

Registers	Coproc 1	Coproc 0
Name	Number	Value
\$zero	0	0
\$at	1	0
\$v0	2	10
\$v1	3	0
\$a0	4	0
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	268500992
\$t1	9	268500992
\$t2	10	4
\$t3	11	0
\$t4	12	0
\$t5	13	0
\$t6	14	0
\$t7	15	0
\$s0	16	64
\$s1	17	2
\$s2	18	2
\$s3	19	0
\$s4	20	0
\$s5	21	0
\$s6	22	0
\$s7	23	0
\$s8	24	0
\$s9	25	0
\$s0	26	0
\$s1	27	0
\$gp	28	268468224
\$fp	29	2147479548
\$fp	30	0
\$ra	31	0
pc		4194364
hi		0
lo		64

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	4	3	64	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

0x10010000 (.data) Hexadecimal Addresses Hexadecimal Values ASCII

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## Programa 22

C:\Users\Lu\Documents\Faculdade\AC\I\Relatório9\programa22.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed 26 inst/sec

**Text Segment**

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20020004	addi \$2,\$0,0x00000004	5: p22: addi \$v0,\$zero,4 #chamar handler
	0x00400004	0x3e011001	lui \$1,0x00001001	6: la \$a0,hello #endereço do label
	0x00400008	0x34240000	ori \$4,\$1,0x00000000	
	0x0040000c	0x0000000c	syscall	7: syscall
	0x00400010	0x2002000a	addi \$2,\$0,0x0000000a	8: addi \$v0,\$zero,10 #chamar o handler 10
	0x00400014	0x0000000c	syscall	9: syscall #chamar sistema operacional

**Data Segment**

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	0x6fc6e548	0x6f57206f	0x21f46c72	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010020	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010040	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010060	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010080	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x100100a0	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x100100c0	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x100100e0	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000
0x10010100	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000

Mars Messages Run I/O

Hello World!  
-- program is finished running --

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0x00000000
\$at	1	0x10010000
\$v0	2	0x00000004
\$v1	3	0x00000000
\$a0	4	0x10010000
\$a1	5	0x00000000
\$a2	6	0x00000000
\$a3	7	0x00000000
\$t0	8	0x00000000
\$t1	9	0x00000000
\$t2	10	0x00000000
\$t3	11	0x00000000
\$t4	12	0x00000000
\$t5	13	0x00000000
\$t6	14	0x00000000
\$t7	15	0x00000000
\$s0	16	0x00000000
\$s1	17	0x00000000
\$s2	18	0x00000000
\$s3	19	0x00000000
\$s4	20	0x00000000
\$s5	21	0x00000000
\$s6	22	0x00000000
\$s7	23	0x00000000
\$s8	24	0x00000000
\$t9	25	0x00000000
\$k0	26	0x00000000
\$k1	27	0x00000000
\$gp	28	0x10008000
\$sp	29	0x7ffffeffc
\$fp	30	0x00000000
\$ra	31	0x00000000
pc		0x00400018
hi		0x00000000
lo		0x00000000

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## Programa 23

C:\Users\Lu\Documents\Faculdade\AC\I\Relatório9\programa23.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

**Text Segment**

Bkpt	Address	Code	Basic	Source
	0x00400028	0x0000000c	syscall	17: syscall
	0x0040002c	0x20020005	addi \$2,\$0,0x00000005	18: addi \$v0,\$zero,5 #chamar handler
	0x00400030	0x0000000c	syscall	19: syscall
	0x00400034	0x00028821	addu \$17,\$0,\$2	21: move \$s1,\$v0
	0x00400038	0x20020004	addi \$2,\$0,0x00000004	22: addi \$v0,\$zero,4 #chamar handler
	0x0040003c	0x3e011001	lui \$1,0x00001001	23: la \$a0,msg1 #endereço do label
	0x00400040	0x34240000	ori \$4,\$1,0x00000000	
	0x00400044	0x0000000c	syscall	24: syscall
	0x00400048	0x20020005	addi \$2,\$0,0x00000005	25: addi \$v0,\$zero,5 #chamar handler
	0x0040004c	0x0000000c	syscall	26: syscall
	0x00400050	0x00029021	addu \$18,\$0,\$2	27: move \$s2,\$v0
	0x00400054	0x0230402a	slt \$8,\$17,\$16	29: slt \$t0,\$s1,\$a0 # se s1 < s0
	0x00400058	0x15000012	bne \$8,\$0,0x00000012	30: bne \$t0,\$zero,troca01# trocar s0 e s1
	0x0040005c	0x0251402a	slt \$8,\$18,\$17	32: slt \$t0,\$s2,\$s1 # se s2 < s1
	0x00400060	0x15000014	bne \$8,\$0,0x00000014	33: bne \$t0,\$zero,troca12# troca s1 e s2
	0x00400064	0x3e011001	lui \$1,0x00001001	35: la \$a0,msg2 # endereço do label
	0x00400068	0x34240000	ori \$4,\$1,0x00000000	
	0x0040006c	0x20020004	addi \$2,\$0,0x00000004	36: addi \$v0,\$zero,4 # chamar handler
	0x00400070	0x0000000c	syscall	37: syscall
	0x00400074	0x00123020	addi \$4,\$0,\$18	38: add \$a0,\$zero,\$s2 # carregar maior numero
	0x00400078	0x20020001	addi \$2,\$0,0x00000001	39: addi \$v0,\$0,1 # carregar handler
	0x0040007c	0x0000000c	syscall	40: syscall
	0x00400080	0x3e011001	lui \$1,0x00001001	42: la \$a0,msg3 # carregar handler
	0x00400084	0x34240018	ori \$4,\$1,0x00000018	
	0x00400088	0x20020004	addi \$2,\$0,0x00000004	43: addi \$v0,\$zero,4 # chamar handler
	0x0040008c	0x0000000c	syscall	44: syscall
	0x00400090	0x00102020	add \$4,\$0,\$16	45: add \$a0,\$zero,\$s0 # chamar handler
	0x00400094	0x20020001	addi \$2,\$0,0x00000001	46: addi \$v0,\$zero,1 # carregar handler
	0x00400098	0x0000000c	syscall	47: syscall
	0x0040009c	0x2002000a	addi \$2,\$0,0x0000000a	49: addi \$v0,\$0,10 # carregar handler
	0x004000a0	0x0000000c	syscall	50: syscall
	0x004000a4	0x00104021	addu \$8,\$0,\$16	53: move \$t0,\$s0 # {
	0x004000a8	0x00118013	addu \$16,\$0,\$18	54: move \$s0,\$s1 # }

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0x00000000
\$at	1	0x10010000
\$v0	2	0x0000000a
\$v1	3	0x00000000
\$a0	4	0x00000004
\$a1	5	0x00000000
\$a2	6	0x00000000
\$a3	7	0x00000000
\$t0	8	0x00000000
\$t1	9	0x00000000
\$t2	10	0x00000000
\$t3	11	0x00000000
\$t4	12	0x00000000
\$t5	13	0x00000000
\$t6	14	0x00000000
\$t7	15	0x00000000
\$s0	16	0x00000004
\$s1	17	0x00000005
\$s2	18	0x00000006
\$s3	19	0x00000000
\$s4	20	0x00000000
\$s5	21	0x00000000
\$s6	22	0x00000000
\$s7	23	0x00000000
\$s8	24	0x00000000
\$t9	25	0x00000000
\$k0	26	0x00000000
\$k1	27	0x00000000
\$gp	28	0x10008000
\$sp	29	0x7ffffeffc
\$fp	30	0x00000000
\$ra	31	0x00000000
pc		0x004000a4
hi		0x00000000
lo		0x00000000

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## Programa 24

C:\Users\Lu\Documents\Faculdade\AC\Relatório9\programa24.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20020004	addi \$t0,\$zero,4	9: addi \$v0,\$zero,4 #chamar handler
	0x00400004	0x3c011001	lui \$t1,4097	10: la \$a0,msg #endereço do label
	0x00400008	0x34240000	ori \$t4,\$t1,0	
	0x0040000c	0x0000000c	syscall	11: syscall
	0x00400010	0x20020005	addi \$t2,\$t0,5	12: addi \$v0,\$zero,5 #chamar handler
	0x00400014	0x0000000c	syscall	13: syscall
	0x00400018	0x00028021	addu \$t6,\$t0,\$t2	14: move \$s0,\$v0 #s0=tamanho do vetor
	0x0040001c	0x2210ffff	addi \$t6,\$t6,-1	15: addi \$s0,\$s0,-1 #subtraí pois já vou guardar 1
	0x00400020	0x20110000	addi \$t7,\$t0,0	16: addi \$s1,\$zero,0 #aux=0
	0x00400024	0x20081001	addi \$t8,\$t0,4097	17: addi \$t0,\$zero,0x1001 #ir para o primeiro endereço
	0x00400028	0x00084400	sll \$t0,\$t0,16	18: sll \$t0,\$t0,16 #shift para o endereço ficar 0x1001000
	0x0040002c	0x20090001	addi \$t9,\$t0,1	19: addi \$t1,\$zero,1 #x=1
	0x00400030	0x20120001	addi \$t8,\$t0,1	20: addi \$s2,\$zero,1 #soma=1
	0x00400034	0xad090000	sw \$t9,0(\$t0)	21: sw \$t1,0(\$t0) #primeiro endereço=1
	0x00400038	0x21080004	addi \$t8,\$t0,4	23: addi \$t0,\$t0,4 #proximo endereço
	0x0040003c	0x21290002	addi \$t9,\$t2,2	24: addi \$t1,\$t1,2 #t1=t1+2
	0x00400040	0xad090000	sw \$t9,0(\$t0)	25: sw \$t1,0(\$t0) #primeiro endereço=x+2
	0x00400044	0x02490020	add \$t8,\$t8,\$t9	26: add \$s2,\$s2,\$t1 #soma=soma+prox. numero
	0x00400048	0x22310001	addi \$t7,\$t7,1	27: addi \$s1,\$s1,1 #aux=aux+1
	0x0040004c	0x1630ffff	bne \$t7,\$t6,-6	28: bne \$s1,\$s0,loop
	0x00400050	0xad120004	sw \$t8,4(\$t0)	30: sw \$s2,4(\$t0) #guardar a soma
	0x00400054	0x2002000a	addi \$t2,\$t0,10	31: addi \$v0,\$zero,10 #chamar o handler 10
	0x00400058	0x0000000c	syscall	32: syscall #chamar sistema operacional

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	3	5	7	9	11	13	15
0x10010020	17	19	100	0	0	0	0	0

Mars Messages Run I/O

Clear Digite o tamanho do vetor 10

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0
\$at	1	268500592
\$v0	2	10
\$v1	3	0
\$a0	4	268500592
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	268501028
\$t1	9	19
\$t2	10	0
\$t3	11	0
\$t4	12	0
\$t5	13	0
\$t6	14	0
\$t7	15	0
\$t8	16	9
\$t9	17	9
\$s0	18	100
\$s1	19	0
\$s2	20	0
\$s3	21	0
\$s4	22	0
\$s5	23	0
\$s6	24	0
\$s7	25	0
\$s8	26	0
\$s9	27	0
\$gp	28	268468224
\$sp	29	2147479548
\$fp	30	0
\$ra	31	0
pc		4194396
hi		0
lo		0

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## Programa 25

C:\Users\Lu\Documents\Faculdade\AC\Relatório9\programa25.asm - MARS 4.5

File Edit Run Settings Tools Help

Run speed at max (no interaction)

Edit Execute

Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20020004	addi \$t0,\$zero,4	9: addi \$v0,\$zero,4 #chamar handler
	0x00400004	0x3c011001	lui \$t1,4097	10: la \$a0,ponto #endereço do label
	0x00400008	0x34240000	ori \$t4,\$t1,34	
	0x0040000c	0x0000000c	syscall	11: syscall
	0x00400010	0x20020005	addi \$t2,\$t0,5	12: addi \$v0,\$zero,5 #s0=temp. em fahrenheit
	0x00400014	0x0000000c	syscall	13: syscall
	0x00400018	0x00028021	addu \$t6,\$t0,\$t2	14: move \$s0,\$v0 #s0=temp. em fahrenheit
	0x0040001c	0x2210ffff	addi \$t6,\$t6,-1	15: addi \$s0,\$s0,-1 #subtraí pois já vou guardar 1
	0x00400020	0x20090009	addi \$t9,\$t0,9	16: addi \$s1,\$zero,0 #aux=0
	0x00400024	0x200a000a	addi \$t0,\$t0,10	17: addi \$t0,\$zero,0x1001 #ir para o primeiro endereço
	0x00400028	0x2210ffff	addi \$t6,\$t6,-32	18: sll \$t0,\$t0,16 #shift para o endereço ficar 0x1001000
	0x0040002c	0x02080018	mult \$t6,\$t8	19: addi \$t1,\$zero,9 #t1=9
	0x00400030	0x00008012	mflo \$t6	20: addi \$t2,\$zero,10 #t2=10
	0x00400034	0x0209001a	div \$t0,\$t1	21: addi \$s0,\$s0,-32 #F=-32
	0x00400038	0x00005812	mflo \$t1	22: mult \$s0,\$t0 #F*t3
	0x0040003c	0x00006010	mfhi \$t2	23: div \$s0,\$t1 #s0/9
	0x00400040	0x018a0018	mult \$t4,\$t2	24: #t3 armazenado o resultado
	0x00400044	0x00006012	mflo \$t4	25: #s0=temp. em fahrenheit
	0x00400048	0x0189001a	div \$t4,\$t1	26: mflo \$t4 #armazeno em t4
	0x0040004c	0x00006012	mflo \$t3	27: #divido t4/9
	0x00400050	0x020b2020	add \$t4,\$t0,\$t1	28: mflo \$t5 #armazeno em t5
	0x00400054	0x20020001	addi \$t2,\$t0,1	29: add \$s0,\$zero,\$t3 # carregar numero inteiro
	0x00400058	0x0000000c	syscall	30: addi \$v0,\$zero,1 # carregar handler
	0x0040005c	0x3c011001	lui \$t1,4097	31: syscall
	0x00400060	0x34240022	ori \$t4,\$t1,34	32: la \$a0,ponto # endereço do label
	0x00400064	0x20020004	addi \$t2,\$t0,4	33: addi \$v0,\$zero,4 #carregar handler
	0x00400068	0x0000000c	syscall	34: syscall
	0x0040006c	0x000d2020	add \$t4,\$t0,\$t3	35: add \$a0,\$zero,\$t5 # carregar numero inteiro
	0x00400070	0x20020001	addi \$t2,\$t0,1	36: addi \$v0,\$zero,1 # carregar handler
	0x00400074	0x0000000c	syscall	37: syscall
	0x00400078	0x2002000a	addi \$t2,\$t0,10	39: addi \$v0,\$zero,10 #chamar o handler 10
	0x0040007c	0x0000000c	syscall	40: syscall #chamar sistema operacional

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	1	3	5	7	9	11	13	15
0x10010020	17	19	100	0	0	0	0	0

Mars Messages Run I/O

Clear Digite a temperatura em fahrenheit.40

4.4

Registers Coproc 1 Coproc 0

Name	Number	Value
\$zero	0	0
\$at	1	268500592
\$v0	2	10
\$v1	3	0
\$a0	4	4
\$a1	5	0
\$a2	6	0
\$a3	7	0
\$t0	8	5
\$t1	9	9
\$t2	10	10
\$t3	11	4
\$t4	12	40
\$t5	13	4
\$t6	14	0
\$t7	15	0
\$t8	16	0
\$t9	17	0
\$s0	18	40
\$s1	19	0
\$s2	20	0
\$s3	21	0
\$s4	22	0
\$s5	23	0
\$s6	24	0
\$s7	25	0
\$s8	26	0
\$s9	27	0
\$gp	28	268468224
\$sp	29	2147479548
\$fp	30	0
\$ra	31	0
pc		4194432
hi		4
lo		4

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