

```
[N1603000D@sceuvm-121 vm]$ ./nachos -x ../test/vmtest.noff -d
```

```
Scheduling interrupt handler the timer at time = 96
```

```
interrupts: off -> on
```

```
== Tick 10 ==
```

```
interrupts: on -> off
```

```
Time: 10, interrupts off
```

```
Pending interrupts:
```

```
In mapcar, about to invoke 804b510(8e1f090)
```

```
Interrupt handler timer, scheduled at 96
```

```
End of pending interrupts
```

```
interrupts: off -> on
```

```
Scheduling interrupt handler the console read at time = 110
```

```
Initializing address space, num pages 28, size 3584
```

```
Initializing stack register to 3568
```

```
Starting thread "main" at time 10
```

```
Reading VA 0x0, size 4
```

```
Translate 0x0, read: *** no valid TLB entry found for this virtual page 0!
```

```
Exception: page fault/no TLB entry
```

```
*****clock
```

```
Phypage = 0 paging in: pid 0, phyPage 0, vpn 0
```

```
The corresponding TLBentry for Page 0 in TLB is 0
```

```
== Tick 11 ==
```

```
interrupts: on -> off
```

```
Time: 11, interrupts off
```

```
Pending interrupts:
```

```
In mapcar, about to invoke 804b510(8e1f090)
```

```
Interrupt handler timer, scheduled at 96
```

```
In mapcar, about to invoke 804b510(8e1f578)
```

```
Interrupt handler console read, scheduled at 110
```

```
End of pending interrupts
```

```
interrupts: off -> on
```

```
Reading VA 0x0, size 4
```

```
Translate 0x0, read: phys addr = 0x0
```

```
value read = 0c000127
```

```
At PC = 0x0: JAL 295
```

```
== Tick 12 ==
```

```
interrupts: on -> off
```

```
Time: 12, interrupts off
```

```
Pending interrupts:
```

```
In mapcar, about to invoke 804b510(8e1f090)
```

```
Interrupt handler timer, scheduled at 96
```

```
In mapcar, about to invoke 804b510(8e1f578)
```

```
Interrupt handler console read, scheduled at 110
```

```
End of pending interrupts
```

```
interrupts: off -> on
```

```
Reading VA 0x4, size 4
```

```
Translate 0x4, read: phys addr = 0x4
```

```
value read = 00000000
```

```
At PC = 0x4: SLL r0,r0,0
```

```
== Tick 13 ==
```

```
interrupts: on -> off
```

```
Time: 13, interrupts off
```

```
Pending interrupts:
```

```
In mapcar, about to invoke 804b510(8e1f090)
```

```
Interrupt handler timer, scheduled at 96
```

```
In mapcar, about to invoke 804b510(8e1f578)
```

```
Interrupt handler console read, scheduled at 110
```

```
End of pending interrupts
```

```
interrupts: off -> on
```

```
Reading VA 0x49c, size 4
```

```
Translate 0x49c, read: *** no valid TLB entry found for this virtual page 9!
```

```
Exception: page fault/no TLB entry
```

```
*****clock
```

```
Phypage = 1 paging in: pid 0, phyPage 1, vpn 9
```

```
The corresponding TLBentry for Page 9 in TLB is 1
```

```
== Tick 14 ==
```

```
interrupts: on -> off
```

```
Time: 14, interrupts off
```

```
Pending interrupts:
```

```
In mapcar, about to invoke 804b510(8e1f090)
```

```
Interrupt handler timer, scheduled at 96
```

```
In mapcar, about to invoke 804b510(8e1f578)
```

```
Interrupt handler console read, scheduled at 110
```

```
End of pending interrupts
```

```
interrupts: off -> on
```

```
Reading VA 0x49c, size 4
```

```

    Translate 0x49c, read: phys addr = 0x9c
    value read = 27bdffd0
At PC = 0x49c: ADDIU r29,r29,-48

== Tick 15 ==
    interrupts: on -> off
Time: 15, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4a0, size 4
    Translate 0x4a0, read: phys addr = 0xa0
    value read = afbf002c
At PC = 0x4a0: SW r31,44(r29)
Writing VA 0xde8, size 4, value 0x8
    Translate 0xde8, write: *** no valid TLB entry found for this virtual page 27!
Exception: page fault/no TLB entry
*****clock
PhyPage = 2 paging in: pid 0, phyPage 2, vpn 27
The corresponding TLBentry for Page 27 in TLB is 2
== Tick 16 ==
    interrupts: on -> off
Time: 16, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4a0, size 4
    Translate 0x4a0, read: phys addr = 0xa0
    value read = afbf002c
At PC = 0x4a0: SW r31,44(r29)
Writing VA 0xde8, size 4, value 0x8
    Translate 0xde8, write: phys addr = 0x16c

```

```

== Tick 17 ==
    interrupts: on -> off
Time: 17, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4a4, size 4
    Translate 0x4a4, read: phys addr = 0xa4
    value read = afbe0028
At PC = 0x4a4: SW r30,40(r29)
Writing VA 0xde8, size 4, value 0x0
    Translate 0xde8, write: phys addr = 0x168

```

```

== Tick 18 ==
    interrupts: on -> off
Time: 18, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4a8, size 4
    Translate 0x4a8, read: phys addr = 0xa8
    value read = 0c000030
At PC = 0x4a8: JAL 48

```

```

== Tick 19 ==
    interrupts: on -> off
Time: 19, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)

```

Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x4ac, size 4
Translate 0x4ac, read: phys addr = 0xac
value read = 03a0f021
At PC = 0x4ac: ADDU r30,r29,r0

== Tick 20 ==
interrupts: on -> off
Time: 20, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0xc0, size 4
Translate 0xc0, read: *** no valid TLB entry found for this virtual page 1!

Exception: page fault/no TLB entry
*****clock
PhyPage = 3 paging in: pid 0, phyPage 3, vpn 1
The corresponding TLBentry for Page 1 in TLB is 0

== Tick 21 ==
interrupts: on -> off
Time: 21, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0xc0, size 4
Translate 0xc0, read: phys addr = 0x1c0
value read = 03e00008
At PC = 0xc0: JR r0,r31

== Tick 22 ==

interrupts: on -> off
Time: 22, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0xc4, size 4
Translate 0xc4, read: phys addr = 0x1c4
value read = 00000000
At PC = 0xc4: SLL r0,r0,0

== Tick 23 ==
interrupts: on -> off
Time: 23, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x4b0, size 4
Translate 0x4b0, read: phys addr = 0xb0
value read = afc00010
At PC = 0x4b0: SW r0,16(r30)
Writing VA 0xdd0, size 4, value 0x0
Translate 0xdd0, write: phys addr = 0x150

== Tick 24 ==
interrupts: on -> off
Time: 24, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts

```

interrupts: off -> on
Reading VA 0x4b4, size 4
  Translate 0x4b4, read: phys addr = 0xb4
  value read = 8fc20010
At PC = 0x4b4: LW r2,16(r30)
Reading VA 0xdd0, size 4
  Translate 0xdd0, read: phys addr = 0x150
  value read = 00000000

== Tick 25 ==
  interrupts: on -> off
Time: 25, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4b8, size 4
  Translate 0x4b8, read: phys addr = 0xb8
  value read = 00000000
At PC = 0x4b8: SLL r0,r0,0

== Tick 26 ==
  interrupts: on -> off
Time: 26, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4bc, size 4
  Translate 0x4bc, read: phys addr = 0xbc
  value read = 28430002
At PC = 0x4bc: SLTI r3,r2,2

== Tick 27 ==

```

```

interrupts: on -> off
Time: 27, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4c0, size 4
  Translate 0x4c0, read: phys addr = 0xc0
  value read = 14600003
At PC = 0x4c0: BNE r3,r0,3

== Tick 28 ==
  interrupts: on -> off
Time: 28, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4c4, size 4
  Translate 0x4c4, read: phys addr = 0xc4
  value read = 00000000
At PC = 0x4c4: SLL r0,r0,0

== Tick 29 ==
  interrupts: on -> off
Time: 29, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4d0, size 4

```

Translate 0x4d0, read: phys addr = 0xd0
 value read = 3c040000
 At PC = 0x4d0: LUI r4,0
 Executing: LUI r4,0

== Tick 30 ==
 interrupts: on -> off
 Time: 30, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4d4, size 4
 Translate 0x4d4, read: phys addr = 0xd4
 value read = 0c00000c
 At PC = 0x4d4: JAL 12

== Tick 31 ==
 interrupts: on -> off
 Time: 31, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4d8, size 4
 Translate 0x4d8, read: phys addr = 0xd8
 value read = 24840598
 At PC = 0x4d8: ADDIU r4,r4,1432

== Tick 32 ==
 interrupts: on -> off
 Time: 32, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x30, size 4
 Translate 0x30, read: *** no valid TLB entry found for this virtual page 0!
 Exception: page fault/no TLB entry
 The corresponding TLBentry for Page 0 in TLB is 1
 == Tick 33 ==
 interrupts: on -> off
 Time: 33, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x30, size 4
 Translate 0x30, read: phys addr = 0x30
 value read = 24020002
 At PC = 0x30: ADDIU r2,r0,2

== Tick 34 ==
 interrupts: on -> off
 Time: 34, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x34, size 4
 Translate 0x34, read: phys addr = 0x34
 value read = 0000000c
 At PC = 0x34: SYSCALL
 Exception: syscall
 SyscallExec(), initiated by user program main #0.

[illegible]

```
Translate 0x59d, read: phys addr = 0x1d
Translate 0x59e, read: phys addr = 0x1e
Translate 0x59f, read: phys addr = 0x1f
Translate 0x5a0, read: phys addr = 0x20
Translate 0x5a1, read: phys addr = 0x21
Translate 0x5a2, read: phys addr = 0x22
```

```

== Tick 35 ==
    interrupts: on -> off
Time: 35, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x38, size 4
    Translate 0x38, read: *** no valid TLB entry found for this virtual page 0!

```

```
Exception: page fault/no TLB entry
*****clock
PhyPage = 1 paging in: pid 0, phyPage 1, vpn 0
The corresponding TLBentry for Page 0 in TLB is 2
```

```

PhyPage = 1 paging in: pid 0, phyPage 1, vpn 0
The corresponding TLBentry for Page 0 in TLB is 2
== Tick 36 ==
    interrupts: on -> off
Time: 36, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x38, size 4
    Translate 0x38, read: phys addr = 0xb8
    value read = 03e00008
At PC = 0x38: JR r0,r31

```

```
interrupts: on -> off
```

```

Time: 37, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x3c, size 4
  Translate 0x3c, read: phys addr = 0xbc
  value read = 00000000
At PC = 0x3c: SLL r0,r0,0

== Tick 38 ==
  interrupts: on -> off
Time: 38, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4dc, size 4
  Translate 0x4dc, read: *** no valid TLB entry found for this virtual page 9!
Exception: page fault/no TLB entry
*****clock
*****clock
Phypage = 3 paging in: pid 0, phyPage 3, vpn 9
The corresponding TLBentry for Page 9 in TLB is 0
== Tick 39 ==
  interrupts: on -> off
Time: 39, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on

```

```

Reading VA 0x4dc, size 4
  Translate 0x4dc, read: phys addr = 0x1dc
  value read = 8fc30010
At PC = 0x4dc: LW r3,16(r30)
Reading VA 0xdd0, size 4
  Translate 0xdd0, read: *** no valid TLB entry found for this virtual page 27!
Exception: page fault/no TLB entry
The corresponding TLBentry for Page 27 in TLB is 1
== Tick 40 ==
  interrupts: on -> off
Time: 40, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4dc, size 4
  Translate 0x4dc, read: phys addr = 0x1dc
  value read = 8fc30010
At PC = 0x4dc: LW r3,16(r30)
Reading VA 0xdd0, size 4
  Translate 0xdd0, read: phys addr = 0x150
  value read = 00000000

== Tick 41 ==
  interrupts: on -> off
Time: 41, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4e0, size 4
  Translate 0x4e0, read: phys addr = 0x1e0
  value read = 00000000
At PC = 0x4e0: SLL r0,r0,0

```

```

== Tick 42 ==
    interrupts: on -> off
Time: 42, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4e4, size 4
    Translate 0x4e4, read: phys addr = 0x1e4
    value read = 00602021
At PC = 0x4e4: ADDU r4,r3,r0

== Tick 43 ==
    interrupts: on -> off
Time: 43, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4e8, size 4
    Translate 0x4e8, read: phys addr = 0x1e8
    value read = 00041880
At PC = 0x4e8: SLL r3,r4,2

== Tick 44 ==
    interrupts: on -> off
Time: 44, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts

```

```

    interrupts: off -> on
Reading VA 0x4ec, size 4
    Translate 0x4ec, read: phys addr = 0x1ec
    value read = 27c40018
At PC = 0x4ec: ADDIU r4,r30,24

== Tick 45 ==
    interrupts: on -> off
Time: 45, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4f0, size 4
    Translate 0x4f0, read: phys addr = 0x1f0
    value read = 00831821
At PC = 0x4f0: ADDU r3,r4,r3

== Tick 46 ==
    interrupts: on -> off
Time: 46, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x4f4, size 4
    Translate 0x4f4, read: phys addr = 0x1f4
    value read = ac620000
At PC = 0x4f4: SW r2,0(r3)
Writing VA 0xdd8, size 4, value 0xffffffff
    Translate 0xdd8, write: phys addr = 0x158

== Tick 47 ==
    interrupts: on -> off

```



```
== Tick 49 ==
    interrupts: on -> off
Time: 49, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
```

```

interrupts: on -> off
Time: 50, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x500, size 4
Translate 0x500, read: phys addr = 0x0
value read = 24430001

```

At PC = 0x500: ADDIU r3,r2,1

== Tick 51 ==

interrupts: on -> off

Time: 51, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x504, size 4

Translate 0x504, read: phys addr = 0x4

value read = 0800012d

At PC = 0x504: J 301

== Tick 52 ==

interrupts: on -> off

Time: 52, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x508, size 4

Translate 0x508, read: phys addr = 0x8

value read = afc30010

At PC = 0x508: SW r3,16(r30)

Writing VA 0xdd0, size 4, value 0x1

Translate 0xdd0, write: phys addr = 0x150

== Tick 53 ==

interrupts: on -> off

Time: 53, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x4b4, size 4

Translate 0x4b4, read: phys addr = 0x1b4

value read = 8fc20010

At PC = 0x4b4: LW r2,16(r30)

Reading VA 0xdd0, size 4

Translate 0xdd0, read: phys addr = 0x150

value read = 00000001

== Tick 54 ==

interrupts: on -> off

Time: 54, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x4b8, size 4

Translate 0x4b8, read: phys addr = 0x1b8

value read = 00000000

At PC = 0x4b8: SLL r0,r0,0

== Tick 55 ==

interrupts: on -> off

Time: 55, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x4bc, size 4

Translate 0x4bc, read: phys addr = 0x1bc

value read = 28430002

At PC = 0x4bc: SLTI r3,r2,2

== Tick 56 ==
 interrupts: on -> off
Time: 56, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
 interrupts: off -> on
Reading VA 0x4c0, size 4
 Translate 0x4c0, read: phys addr = 0x1c0
 value read = 14600003
At PC = 0x4c0: BNE r3,r0,3

== Tick 57 ==
 interrupts: on -> off
Time: 57, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
 interrupts: off -> on
Reading VA 0x4c4, size 4
 Translate 0x4c4, read: phys addr = 0x1c4
 value read = 00000000
At PC = 0x4c4: SLL r0,r0,0

== Tick 58 ==
 interrupts: on -> off
Time: 58, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110

End of pending interrupts
 interrupts: off -> on
Reading VA 0x4d0, size 4
 Translate 0x4d0, read: phys addr = 0x1d0
 value read = 3c040000
At PC = 0x4d0: LUI r4,0
Executing: LUI r4,0

== Tick 59 ==
 interrupts: on -> off
Time: 59, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
 interrupts: off -> on
Reading VA 0x4d4, size 4
 Translate 0x4d4, read: phys addr = 0x1d4
 value read = 0c00000c
At PC = 0x4d4: JAL 12

== Tick 60 ==
 interrupts: on -> off
Time: 60, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
 interrupts: off -> on
Reading VA 0x4d8, size 4
 Translate 0x4d8, read: phys addr = 0x1d8
 value read = 24840598
At PC = 0x4d8: ADDIU r4,r4,1432

== Tick 61 ==
 interrupts: on -> off

```

Time: 61, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x30, size 4
    Translate 0x30, read: *** no valid TLB entry found for this virtual page 0!
Exception: page fault/no TLB entry
The corresponding TLBentry for Page 0 in TLB is 0
== Tick 62 ==
    interrupts: on -> off
Time: 62, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x30, size 4
    Translate 0x30, read: phys addr = 0xb0
    value read = 24020002
At PC = 0x30: ADDIU r2,r0,2

== Tick 63 ==
    interrupts: on -> off
Time: 63, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
    interrupts: off -> on
Reading VA 0x34, size 4
    Translate 0x34, read: phys addr = 0xb4
    value read = 0000000c

```

```

At PC = 0x34: SYSCALL
Exception: syscall
SyscallExec(), initiated by user program main #0.
    Translate 0x598, read: *** no valid TLB entry found for this virtual page 11!
*****clock
*****clock
*****clock
Phypage = 3 paging in: pid 0, phyPage 3, vpn 11
The corresponding TLBentry for Page 11 in TLB is 1    Translate 0x598, read: phys addr = 0x198
    Translate 0x599, read: phys addr = 0x199
    Translate 0x59a, read: phys addr = 0x19a
    Translate 0x59b, read: phys addr = 0x19b
    Translate 0x59c, read: phys addr = 0x19c
    Translate 0x59d, read: phys addr = 0x19d
    Translate 0x59e, read: phys addr = 0x19e
    Translate 0x59f, read: phys addr = 0x19f
    Translate 0x5a0, read: phys addr = 0x1a0
    Translate 0x5a1, read: phys addr = 0x1a1
    Translate 0x5a2, read: phys addr = 0x1a2
    Translate 0x598, read: phys addr = 0x198
    Translate 0x599, read: phys addr = 0x199
    Translate 0x59a, read: phys addr = 0x19a
    Translate 0x59b, read: phys addr = 0x19b
    Translate 0x59c, read: phys addr = 0x19c
    Translate 0x59d, read: phys addr = 0x19d
    Translate 0x59e, read: phys addr = 0x19e
    Translate 0x59f, read: phys addr = 0x19f
    Translate 0x5a0, read: phys addr = 0x1a0
    Translate 0x5a1, read: phys addr = 0x1a1
    Translate 0x5a2, read: phys addr = 0x1a2

== Tick 64 ==
    interrupts: on -> off
Time: 64, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110

```

End of pending interrupts
interrupts: off -> on
Reading VA 0x38, size 4
Translate 0x38, read: phys addr = 0xb8
value read = 03e00008
At PC = 0x38: JR r0,r31

== Tick 65 ==
interrupts: on -> off
Time: 65, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x3c, size 4
Translate 0x3c, read: phys addr = 0xbc
value read = 00000000
At PC = 0x3c: SLL r0,r0,0

== Tick 66 ==
interrupts: on -> off
Time: 66, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x4dc, size 4
Translate 0x4dc, read: *** no valid TLB entry found for this virtual page 9!

Exception: page fault/no TLB entry
*****clock
*****clock
*****clock
Phypage = 2 paging out: pid 0, phyPage 2, vpn 27
paging in: pid 0, phyPage 2, vpn 9

The corresponding TLBentry for Page 9 in TLB is 2

== Tick 67 ==
interrupts: on -> off
Time: 67, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
interrupts: off -> on
Reading VA 0x4dc, size 4
Translate 0x4dc, read: phys addr = 0x15c
value read = 8fc30010
At PC = 0x4dc: LW r3,16(r30)
Reading VA 0xdd0, size 4
Translate 0xdd0, read: *** no valid TLB entry found for this virtual page 27!

Exception: page fault/no TLB entry

*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock

Phypage = 1 paging in: pid 0, phyPage 1, vpn 27

The corresponding TLBentry for Page 27 in TLB is 0

== Tick 68 ==
interrupts: on -> off
Time: 68, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4dc, size 4
 Translate 0x4dc, read: phys addr = 0x15c
 value read = 8fc30010
 At PC = 0x4dc: LW r3,16(r30)
 Reading VA 0xdd0, size 4
 Translate 0xdd0, read: phys addr = 0xd0
 value read = 00000001

== Tick 69 ==
 interrupts: on -> off
 Time: 69, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4e0, size 4
 Translate 0x4e0, read: phys addr = 0x160
 value read = 00000000
 At PC = 0x4e0: SLL r0,r0,0

== Tick 70 ==
 interrupts: on -> off
 Time: 70, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4e4, size 4
 Translate 0x4e4, read: phys addr = 0x164

 value read = 00602021
 At PC = 0x4e4: ADDU r4,r3,r0

== Tick 71 ==
 interrupts: on -> off
 Time: 71, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4e8, size 4
 Translate 0x4e8, read: phys addr = 0x168
 value read = 00041880
 At PC = 0x4e8: SLL r3,r4,2

== Tick 72 ==
 interrupts: on -> off
 Time: 72, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4ec, size 4
 Translate 0x4ec, read: phys addr = 0x16c
 value read = 27c40018
 At PC = 0x4ec: ADDIU r4,r30,24

== Tick 73 ==
 interrupts: on -> off
 Time: 73, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4f0, size 4
 Translate 0x4f0, read: phys addr = 0x170
 value read = 00831821
 At PC = 0x4f0: ADDU r3,r4,r3

 == Tick 74 ==
 interrupts: on -> off
 Time: 74, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4f4, size 4
 Translate 0x4f4, read: phys addr = 0x174
 value read = ac620000
 At PC = 0x4f4: SW r2,0(r3)
 Writing VA 0xddc, size 4, value 0xffffffff
 Translate 0xddc, write: phys addr = 0xdc

 == Tick 75 ==
 interrupts: on -> off
 Time: 75, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4f8, size 4
 Translate 0x4f8, read: phys addr = 0x178
 value read = 8fc20010
 At PC = 0x4f8: LW r2,16(r30)
 Reading VA 0xdd0, size 4

Translate 0xdd0, read: phys addr = 0xd0
 value read = 00000001

== Tick 76 ==
 interrupts: on -> off
 Time: 76, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x4fc, size 4
 Translate 0x4fc, read: phys addr = 0x17c
 value read = 00000000
 At PC = 0x4fc: SLL r0,r0,0

 == Tick 77 ==
 interrupts: on -> off
 Time: 77, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x500, size 4
 Translate 0x500, read: *** no valid TLB entry found for this virtual page 10!
 Exception: page fault/no TLB entry
 The corresponding TLBentry for Page 10 in TLB is 1
 == Tick 78 ==
 interrupts: on -> off
 Time: 78, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 96
 In mapcar, about to invoke 804b510(8e1f578)
 Interrupt handler console read, scheduled at 110

```

End of pending interrupts
  interrupts: off -> on
Reading VA 0x500, size 4
  Translate 0x500, read: phys addr = 0x0
  value read = 24430001
At PC = 0x500: ADDIU r3,r2,1

== Tick 79 ==
  interrupts: on -> off
Time: 79, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x504, size 4
  Translate 0x504, read: phys addr = 0x4
  value read = 0800012d
At PC = 0x504: J 301

== Tick 80 ==
  interrupts: on -> off
Time: 80, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x508, size 4
  Translate 0x508, read: phys addr = 0x8
  value read = afc30010
At PC = 0x508: SW r3,16(r30)
Writing VA 0xdd0, size 4, value 0x2
  Translate 0xdd0, write: phys addr = 0xd0

== Tick 81 ==

```

```

  interrupts: on -> off
Time: 81, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4b4, size 4
  Translate 0x4b4, read: phys addr = 0x134
  value read = 8fc20010
At PC = 0x4b4: LW r2,16(r30)
Reading VA 0xdd0, size 4
  Translate 0xdd0, read: phys addr = 0xd0
  value read = 00000002

== Tick 82 ==
  interrupts: on -> off
Time: 82, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4b8, size 4
  Translate 0x4b8, read: phys addr = 0x138
  value read = 00000000
At PC = 0x4b8: SLL r0,r0,0

== Tick 83 ==
  interrupts: on -> off
Time: 83, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110

```



```

End of pending interrupts
  interrupts: off -> on
Reading VA 0x4bc, size 4
  Translate 0x4bc, read: phys addr = 0x13c
  value read = 28430002
At PC = 0x4bc: SLTI r3,r2,2

== Tick 84 ==
  interrupts: on -> off
Time: 84, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4c0, size 4
  Translate 0x4c0, read: phys addr = 0x140
  value read = 14600003
At PC = 0x4c0: BNE r3,r0,3

== Tick 85 ==
  interrupts: on -> off
Time: 85, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4c4, size 4
  Translate 0x4c4, read: phys addr = 0x144
  value read = 00000000
At PC = 0x4c4: SLL r0,r0,0

== Tick 86 ==
  interrupts: on -> off
Time: 86, interrupts off

```

```

Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4c8, size 4
  Translate 0x4c8, read: phys addr = 0x148
  value read = 08000143
At PC = 0x4c8: J 323

== Tick 87 ==
  interrupts: on -> off
Time: 87, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x4cc, size 4
  Translate 0x4cc, read: phys addr = 0x14c
  value read = 00000000
At PC = 0x4cc: SLL r0,r0,0

== Tick 88 ==
  interrupts: on -> off
Time: 88, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 96
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
End of pending interrupts
  interrupts: off -> on
Reading VA 0x50c, size 4
  Translate 0x50c, read: phys addr = 0xc
  value read = 00000000

```

At PC = 0x50c: SLL r0,r0,0

== Tick 89 ==

interrupts: on -> off

Time: 89, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x510, size 4

Translate 0x510, read: phys addr = 0x10

value read = afc00010

At PC = 0x510: SW r0,16(r30)

Writing VA 0xdd0, size 4, value 0x0

Translate 0xdd0, write: phys addr = 0xd0

== Tick 90 ==

interrupts: on -> off

Time: 90, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x514, size 4

Translate 0x514, read: phys addr = 0x14

value read = 8fc20010

At PC = 0x514: LW r2,16(r30)

Reading VA 0xdd0, size 4

Translate 0xdd0, read: phys addr = 0xd0

value read = 00000000

== Tick 91 ==

interrupts: on -> off

Time: 91, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x518, size 4

Translate 0x518, read: phys addr = 0x18

value read = 00000000

At PC = 0x518: SLL r0,r0,0

== Tick 92 ==

interrupts: on -> off

Time: 92, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x51c, size 4

Translate 0x51c, read: phys addr = 0x1c

value read = 28430002

At PC = 0x51c: SLTI r3,r2,2

== Tick 93 ==

interrupts: on -> off

Time: 93, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x520, size 4

Translate 0x520, read: phys addr = 0x20

value read = 14600003

At PC = 0x520: BNE r3,r0,3

== Tick 94 ==

interrupts: on -> off

Time: 94, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x524, size 4

Translate 0x524, read: phys addr = 0x24

value read = 00000000

At PC = 0x524: SLL r0,r0,0

== Tick 95 ==

interrupts: on -> off

Time: 95, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

Reading VA 0x530, size 4

Translate 0x530, read: phys addr = 0x30

value read = 8fc20010

At PC = 0x530: LW r2,16(r30)

Reading VA 0xdd0, size 4

Translate 0xdd0, read: phys addr = 0xd0

value read = 00000000

== Tick 96 ==

interrupts: on -> off

Time: 96, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 96

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

Invoking interrupt handler for the timer at time 96

Scheduling interrupt handler the timer at time = 105

Time: 96, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler timer, scheduled at 105

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

interrupts: off -> on

interrupts: on -> off

Yielding thread main #0

interrupts: off -> on

== Tick 106 ==

interrupts: on -> off

Time: 106, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler timer, scheduled at 105

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

End of pending interrupts

Invoking interrupt handler for the timer at time 105

Scheduling interrupt handler the timer at time = 185

Time: 106, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f578)

Interrupt handler console read, scheduled at 110

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

End of pending interrupts

interrupts: off -> on

interrupts: on -> off

Yielding thread main #0

interrupts: off -> on

```

== Tick 116 ==
    interrupts: on -> off
Time: 116, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f578)
Interrupt handler console read, scheduled at 110
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
End of pending interrupts
Invoking interrupt handler for the console read at time 110
Scheduling interrupt handler the console read at time = 216
Time: 116, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
    interrupts: off -> on
Reading VA 0x534, size 4
    Translate 0x534, read: phys addr = 0x34
    value read = 00000000
At PC = 0x534: SLL r0,r0,0

== Tick 117 ==
    interrupts: on -> off
Time: 117, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
    interrupts: off -> on
Reading VA 0x538, size 4
    Translate 0x538, read: phys addr = 0x38
    value read = 00401821
At PC = 0x538: ADDU r3,r2,r0

```

```

== Tick 118 ==
    interrupts: on -> off
Time: 118, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
    interrupts: off -> on
Reading VA 0x53c, size 4
    Translate 0x53c, read: phys addr = 0x3c
    value read = 00031080
At PC = 0x53c: SLL r2,r3,2

== Tick 119 ==
    interrupts: on -> off
Time: 119, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
    interrupts: off -> on
Reading VA 0x540, size 4
    Translate 0x540, read: phys addr = 0x40
    value read = 27c30018
At PC = 0x540: ADDIU r3,r30,24

== Tick 120 ==
    interrupts: on -> off
Time: 120, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
    interrupts: off -> on

```

```

Reading VA 0x544, size 4
  Translate 0x544, read: phys addr = 0x44
  value read = 00621021
At PC = 0x544: ADDU r2,r3,r2

== Tick 121 ==
  interrupts: on -> off
Time: 121, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x548, size 4
  Translate 0x548, read: phys addr = 0x48
  value read = 8c440000
At PC = 0x548: LW r4,0(r2)
Reading VA 0xdd8, size 4
  Translate 0xdd8, read: phys addr = 0xd8
  value read = ffffffff

== Tick 122 ==
  interrupts: on -> off
Time: 122, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x54c, size 4
  Translate 0x54c, read: phys addr = 0x4c
  value read = 0c000010
At PC = 0x54c: JAL 16

== Tick 123 ==
  interrupts: on -> off

```

```

Time: 123, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x550, size 4
  Translate 0x550, read: phys addr = 0x50
  value read = 00000000
At PC = 0x550: SLL r0,r0,0

== Tick 124 ==
  interrupts: on -> off
Time: 124, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x40, size 4
  Translate 0x40, read: *** no valid TLB entry found for this virtual page 0!
Exception: page fault/no TLB entry
*****clock
*****clock
*****clock
*****clock
*****clock
*****clock
Phypage = 3 paging in: pid 0, phyPage 3, vpn 0
The corresponding TLBentry for Page 0 in TLB is 2
== Tick 125 ==
  interrupts: on -> off
Time: 125, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185

```

In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x40, size 4
Translate 0x40, read: phys addr = 0x1c0
value read = 24020003
At PC = 0x40: ADDIU r2,r0,3

== Tick 126 ==
interrupts: on -> off
Time: 126, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x44, size 4
Translate 0x44, read: phys addr = 0x1c4
value read = 0000000c
At PC = 0x44: SYSCALL
Exception: syscall
SyscallJoin(), initiated by user program main #0.

== Tick 127 ==
interrupts: on -> off
Time: 127, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x48, size 4
Translate 0x48, read: phys addr = 0x1c8
value read = 03e00008
At PC = 0x48: JR r0,r31

== Tick 128 ==
interrupts: on -> off
Time: 128, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x4c, size 4
Translate 0x4c, read: phys addr = 0x1cc
value read = 00000000
At PC = 0x4c: SLL r0,r0,0

== Tick 129 ==
interrupts: on -> off
Time: 129, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x554, size 4
Translate 0x554, read: phys addr = 0x54
value read = afc20020
At PC = 0x554: SW r2,32(r30)
Writing VA 0xde0, size 4, value 0xffffffff
Translate 0xde0, write: phys addr = 0xe0

== Tick 130 ==
interrupts: on -> off
Time: 130, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x558, size 4
 Translate 0x558, read: phys addr = 0x58
 value read = 8fc20010
 At PC = 0x558: LW r2,16(r30)
 Reading VA 0xdd0, size 4
 Translate 0xdd0, read: phys addr = 0xd0
 value read = 00000000

 == Tick 131 ==
 interrupts: on -> off
 Time: 131, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x55c, size 4
 Translate 0x55c, read: phys addr = 0x5c
 value read = 00000000
 At PC = 0x55c: SLL r0,r0,0

 == Tick 132 ==
 interrupts: on -> off
 Time: 132, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x560, size 4
 Translate 0x560, read: phys addr = 0x60
 value read = 24430001
 At PC = 0x560: ADDIU r3,r2,1

== Tick 133 ==
 interrupts: on -> off
 Time: 133, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x564, size 4
 Translate 0x564, read: phys addr = 0x64
 value read = 08000145
 At PC = 0x564: J 325

 == Tick 134 ==
 interrupts: on -> off
 Time: 134, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x568, size 4
 Translate 0x568, read: phys addr = 0x68
 value read = afc30010
 At PC = 0x568: SW r3,16(r30)
 Writing VA 0xdd0, size 4, value 0x1
 Translate 0xdd0, write: phys addr = 0xd0

 == Tick 135 ==
 interrupts: on -> off
 Time: 135, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x514, size 4
 Translate 0x514, read: phys addr = 0x14
 value read = 8fc20010
 At PC = 0x514: LW r2,16(r30)
 Reading VA 0xdd0, size 4
 Translate 0xdd0, read: phys addr = 0xd0
 value read = 00000001

 == Tick 136 ==
 interrupts: on -> off
 Time: 136, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x518, size 4
 Translate 0x518, read: phys addr = 0x18
 value read = 00000000
 At PC = 0x518: SLL r0,r0,0

 == Tick 137 ==
 interrupts: on -> off
 Time: 137, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x51c, size 4
 Translate 0x51c, read: phys addr = 0x1c
 value read = 28430002
 At PC = 0x51c: SLTI r3,r2,2

== Tick 138 ==
 interrupts: on -> off
 Time: 138, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x520, size 4
 Translate 0x520, read: phys addr = 0x20
 value read = 14600003
 At PC = 0x520: BNE r3,r0,3

 == Tick 139 ==
 interrupts: on -> off
 Time: 139, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x524, size 4
 Translate 0x524, read: phys addr = 0x24
 value read = 00000000
 At PC = 0x524: SLL r0,r0,0

 == Tick 140 ==
 interrupts: on -> off
 Time: 140, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts


```

interrupts: off -> on
Reading VA 0x530, size 4
  Translate 0x530, read: phys addr = 0x30
  value read = 8fc20010
At PC = 0x530: LW r2,16(r30)
Reading VA 0xdd0, size 4
  Translate 0xdd0, read: phys addr = 0xd0
  value read = 00000001

== Tick 141 ==
  interrupts: on -> off
Time: 141, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x534, size 4
  Translate 0x534, read: phys addr = 0x34
  value read = 00000000
At PC = 0x534: SLL r0,r0,0

== Tick 142 ==
  interrupts: on -> off
Time: 142, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x538, size 4
  Translate 0x538, read: phys addr = 0x38
  value read = 00401821
At PC = 0x538: ADDU r3,r2,r0

== Tick 143 ==

```

```

interrupts: on -> off
Time: 143, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x53c, size 4
  Translate 0x53c, read: phys addr = 0x3c
  value read = 00031080
At PC = 0x53c: SLL r2,r3,2

== Tick 144 ==
  interrupts: on -> off
Time: 144, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x540, size 4
  Translate 0x540, read: phys addr = 0x40
  value read = 27c30018
At PC = 0x540: ADDIU r3,r30,24

== Tick 145 ==
  interrupts: on -> off
Time: 145, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
  interrupts: off -> on
Reading VA 0x544, size 4

```

Translate 0x544, read: phys addr = 0x44
 value read = 00621021
 At PC = 0x544: ADDU r2,r3,r2

 == Tick 146 ==
 interrupts: on -> off
 Time: 146, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x548, size 4
 Translate 0x548, read: phys addr = 0x48
 value read = 8c440000
 At PC = 0x548: LW r4,0(r2)
 Reading VA 0xddc, size 4
 Translate 0xddc, read: phys addr = 0xdc
 value read = ffffffff

 == Tick 147 ==
 interrupts: on -> off
 Time: 147, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x54c, size 4
 Translate 0x54c, read: phys addr = 0x4c
 value read = 0c000010
 At PC = 0x54c: JAL 16

 == Tick 148 ==
 interrupts: on -> off
 Time: 148, interrupts off

Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x550, size 4
 Translate 0x550, read: phys addr = 0x50
 value read = 00000000
 At PC = 0x550: SLL r0,r0,0

 == Tick 149 ==
 interrupts: on -> off
 Time: 149, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x40, size 4
 Translate 0x40, read: phys addr = 0x1c0
 value read = 24020003
 At PC = 0x40: ADDIU r2,r0,3

 == Tick 150 ==
 interrupts: on -> off
 Time: 150, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x44, size 4
 Translate 0x44, read: phys addr = 0x1c4
 value read = 0000000c

At PC = 0x44: SYSCALL

Exception: syscall

SyscallJoin(), initiated by user program main #0.

== Tick 151 ==

interrupts: on -> off

Time: 151, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216

End of pending interrupts

interrupts: off -> on

Reading VA 0x48, size 4

Translate 0x48, read: phys addr = 0x1c8

value read = 03e00008

At PC = 0x48: JR r0,r31

== Tick 152 ==

interrupts: on -> off

Time: 152, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216

End of pending interrupts

interrupts: off -> on

Reading VA 0x4c, size 4

Translate 0x4c, read: phys addr = 0x1cc

value read = 00000000

At PC = 0x4c: SLL r0,r0,0

== Tick 153 ==

interrupts: on -> off

Time: 153, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216

End of pending interrupts

interrupts: off -> on

Reading VA 0x554, size 4

Translate 0x554, read: phys addr = 0x54

value read = afc20020

At PC = 0x554: SW r2,32(r30)

Writing VA 0xde0, size 4, value 0xffffffff

Translate 0xde0, write: phys addr = 0xe0

== Tick 154 ==

interrupts: on -> off

Time: 154, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216

End of pending interrupts

interrupts: off -> on

Reading VA 0x558, size 4

Translate 0x558, read: phys addr = 0x58

value read = 8fc20010

At PC = 0x558: LW r2,16(r30)

Reading VA 0xdd0, size 4

Translate 0xdd0, read: phys addr = 0xd0

value read = 00000001

== Tick 155 ==

interrupts: on -> off

Time: 155, interrupts off

Pending interrupts:

In mapcar, about to invoke 804b510(8e1f090)

Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)

Interrupt handler console read, scheduled at 216

End of pending interrupts

interrupts: off -> on

Reading VA 0x55c, size 4

Translate 0x55c, read: phys addr = 0x5c
 value read = 00000000
 At PC = 0x55c: SLL r0,r0,0

 == Tick 156 ==
 interrupts: on -> off
 Time: 156, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x560, size 4
 Translate 0x560, read: phys addr = 0x60
 value read = 24430001
 At PC = 0x560: ADDIU r3,r2,1

 == Tick 157 ==
 interrupts: on -> off
 Time: 157, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x564, size 4
 Translate 0x564, read: phys addr = 0x64
 value read = 08000145
 At PC = 0x564: J 325

 == Tick 158 ==
 interrupts: on -> off
 Time: 158, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x568, size 4
 Translate 0x568, read: phys addr = 0x68
 value read = afc30010
 At PC = 0x568: SW r3,16(r30)
 Writing VA 0xdd0, size 4, value 0x2
 Translate 0xdd0, write: phys addr = 0xd0

 == Tick 159 ==
 interrupts: on -> off
 Time: 159, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x514, size 4
 Translate 0x514, read: phys addr = 0x14
 value read = 8fc20010
 At PC = 0x514: LW r2,16(r30)
 Reading VA 0xdd0, size 4
 Translate 0xdd0, read: phys addr = 0xd0
 value read = 00000002

 == Tick 160 ==
 interrupts: on -> off
 Time: 160, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x518, size 4

Translate 0x518, read: phys addr = 0x18
 value read = 00000000
 At PC = 0x518: SLL r0,r0,0

 == Tick 161 ==
 interrupts: on -> off
 Time: 161, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x51c, size 4
 Translate 0x51c, read: phys addr = 0x1c
 value read = 28430002
 At PC = 0x51c: SLTI r3,r2,2

 == Tick 162 ==
 interrupts: on -> off
 Time: 162, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x520, size 4
 Translate 0x520, read: phys addr = 0x20
 value read = 14600003
 At PC = 0x520: BNE r3,r0,3

 == Tick 163 ==
 interrupts: on -> off
 Time: 163, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185

In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x524, size 4
 Translate 0x524, read: phys addr = 0x24
 value read = 00000000
 At PC = 0x524: SLL r0,r0,0

 == Tick 164 ==
 interrupts: on -> off
 Time: 164, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x528, size 4
 Translate 0x528, read: phys addr = 0x28
 value read = 0800015b
 At PC = 0x528: J 347

 == Tick 165 ==
 interrupts: on -> off
 Time: 165, interrupts off
 Pending interrupts:
 In mapcar, about to invoke 804b510(8e1f090)
 Interrupt handler timer, scheduled at 185
 In mapcar, about to invoke 804b510(8e1ff10)
 Interrupt handler console read, scheduled at 216
 End of pending interrupts
 interrupts: off -> on
 Reading VA 0x52c, size 4
 Translate 0x52c, read: phys addr = 0x2c
 value read = 00000000
 At PC = 0x52c: SLL r0,r0,0

 == Tick 166 ==

interrupts: on -> off
Time: 166, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x56c, size 4
Translate 0x56c, read: phys addr = 0x6c
value read = 0c000004
At PC = 0x56c: JAL 4

== Tick 167 ==
interrupts: on -> off
Time: 167, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x570, size 4
Translate 0x570, read: phys addr = 0x70
value read = 00000000
At PC = 0x570: SLL r0,r0,0

== Tick 168 ==
interrupts: on -> off
Time: 168, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x10, size 4

Translate 0x10, read: phys addr = 0x190
value read = 24020000
At PC = 0x10: ADDIU r2,r0,0

== Tick 169 ==
interrupts: on -> off
Time: 169, interrupts off
Pending interrupts:
In mapcar, about to invoke 804b510(8e1f090)
Interrupt handler timer, scheduled at 185
In mapcar, about to invoke 804b510(8e1ff10)
Interrupt handler console read, scheduled at 216
End of pending interrupts
interrupts: off -> on
Reading VA 0x14, size 4
Translate 0x14, read: phys addr = 0x194
value read = 0000000c
At PC = 0x14: SYSCALL

Exception: syscall
SyscallHalt(), initiated by user program main #0.
Machine halting!

Ticks: total 169, idle 0, system 30, user 139
Disk I/O: reads 0, writes 0
Console I/O: reads 0, writes 0
Paging: faults 12
Network I/O: packets received 0, sent 0