```
pjoshi@ada:~/cs510/p4$ blitz -g os
Beginning execution...
==================  KPL PROGRAM STARTING  ====================
Initializing Thread Scheduler...
Initializing Process Manager...
Initializing Thread Manager...
Initializing Frame Manager...


*****  THREAD-MANAGER TEST  *****

123.4.56.7182910.11..1213..14.4...3155616128.17910...18.19207....13..11144.12.36.515..16..17...1819.207..1328..9.1011..12...153.516.17.144..12018..213...9...196107...3.158115.14..201...1816..12.9..1046.
19.1317..2.15..14.7..20.31816.12119.410...8..13..2151146..7.20517......124.103.8181316.19.2.6......20.715121.9..4111017...14..6.2.205.37.8.1518.9...10...413.141126216......3...15892010411513.17....3..
..7.1814815.191920...17....31210..7.1164...181416...82.17.15312.10.13.7.1..5.20..18.1198.172.19.16....6.7...15543..20181411..1...19..126.7910..1315..8.2016....117.19.3.1226...41113....8207..14.1817..1.
105.15...11419.3..12...208.141618.1.910.7..6..11..133.2515208.14.....12...714.176111613.18...141219.3......2.91.74.17185.14611....15169....2021.813414......12..1591719.161820.210.5.12.9..151..8.17.313.
2.5.9.18..1612...20817.11..52.6.9.16.18.7.10.20.3.19.5.14.6.1.7.4.17....3192.15.6.12.4.8.1.13.19.11.14..4.9..188.10.13..11.14.6.12.17...1819.11..15...5..10.19..11.7.17..13..10.19.5.16....13..19..16.5..1
6..19.16..

*****  THREAD-MANAGER TEST COMPLETED SUCCESSFULLY *****


*****  PROCESS-MANAGER TEST  *****

123.4..1562738.9...104...11112.13.21531457168.17.189196...20....410..11211.1513.143182....9...7.20..4101617.196.81.....1513...59.12.1171420..1834.....198...1513.25.1610179121....18.3.....19117814.1513.
202...16...4..5318..6910..17119..15..20..11..1647..5128.14.136....117..181520.2..911.10.16...3.14.513.119417...1218..2...9.10716.8156.3.5....1...141220218.1113919....8...3.51074117.1412...13.....16158
205263.18.......171013.471116151.8......1810..20139171914.5.2.....8..418107.1161620.9...15....2.812134.18171...3....7.915.19214.10118..16.....312..137.5964.15.17....16..19.18.2312201413310.......8.17.5
16119.11918.2...6.8....17.3512..416.111..2206.8.19......14173..1554131092.......18...8111141720753.12.6.18.8.15..191...41413..6.12...18.1087...15.4..145..611..1617191810.....9.415.21413.6.12816....2011
4...9..177.151463....19.202.111....139181712...3..719.204....106.913...15..3112720.....51018612.....16151911...5.1.1013...16177.19....5.1061.17..1120..1416....9.7...6.12.20.16.19..11.7..14.12..20..19..
..14.12....

*****  PROCESS-MANAGER TEST COMPLETED SUCCESSFULLY *****


*****  FRAME-MANAGER TEST  *****

12345678.9.10.....1.23.746.85.....109...1.263..54.78.10.9.1..2..6.53..748.10..91..2563.7..4.810...91.52.6.3..7.4.8.109.1..52.6.3..7..4810.9.15..62..3.7.4.8.10.9.1.5.6.2.3.7.4.8.10.9.1.5.6.2.3.7.4.8.109..
15.6..23..74.8..10.9.15..62..37..4.810..91..56..2.37..48..10.91.5.6.2..37..48..10.91.5.6.2.3.7.4.8.10.9.1.5.6.2.3.7.4.8.10.9.1.5.6.2.3.7.4.8.10.9.1.5.6.2.3.7.4.
8.10.......5.69132.7.4....10.85.6.1.392...4.7...1085.613..9..2..47.105861...3.29.4.7..10.58..61...329.4.7.10..58.6.12...3.9.47.10.5.8.6.1.2.3.9.4.7.10.5.8.6.1.2.3.9.4.7.10.5.8.6.1.2.3.9.4.710.5..86.1..2
3..94.7.10.5..86..12..39..47.10..58.6.1.2..39.4..710.5.8.6..12..39..47.10..58.6.1.2.3.9.4.7.10.5.8.6.1.2.3.9.4.7.10.5.8.6.1.2.3.9.4.7.10.5.8.6.1.2.3.9.4.7..510.
...6.1238.....410.75.9..61..2.3..810459.......67128.3104.....59671.8.23..10..4.59.6.71...82.1034...59.6.7.1.8..210.3.4.5.9.6.7..18.2.10.3.4.5.9.67..1.8.2.10.3.4.5.9.6.7.1.8.2.103..4.59.6..71..82..103.
.45.9.6.7..18.2.10..34.5.9.6.7.1.8.2..103..45.9.6.7..18.2.10.3.4.5.9.6.7.1..82.10.3.4.5.9.6.7.1.8.2.10.3.4.5.9.6.7.1.8.2.10.3.4.5.9.6.7.1.8.2.10.3..54..69..17..
....210435.86...971.2..10.45..3.8697...1.210.45...83.69.7...1..10245.83...96..71..10.42.5.8..39.6.7.110..42..58..3..9.76.110..42..5..83.9.76..110..42..58..3.97.6..1.104.2..58..3.97.6.1.10.4.2.5.8.3.9
.7.6.1..104.2..58.3.9.7.6.1.10.4.2.5.8..39..76.1.10.4.2.5..83.9.7.6.1.10.4.2.5..83.9.7.6.1.10.4.2.5.8.3.9.7.6.1.10.4.2.5.8.3.9.7.6.1.10.4.2.5.8.3.9.7.6.1.10.4..52.8.3.9.....610.145
72..83....9101.64...75..28.39....1106.74.5.28....39.101.6.74...5.2.839..10.1..67.4.5..28..39.101..6.7.4.5..283..910..1.67.4.5..2.8.3.910..16..74..5.2.83..910..1.6.74.5..28..39.10.1.6.7.4.5.2..83.9.10.1
.6..74.5.2.8.3.9.10.1.6.7.4..52.8.3.9.10.1.6.7.4.5.2.8.3.9.10.1..67.4.5.2.8.3.9.10.1.6.7.4.5.2.8.3.9.10.1.6.7.4.5.2.8.3.9.10.1.6.7.4..2.8.3.9....7...8..9...

Here is a histogram showing how many times each frame was used:
   0:  ***************************************************************************************************************************...
   1:  ***************************************************************************************************************************...
   2:  ***************************************************************************************************************************...
   3:  ***************************************************************************************************************************...
   4:  ***************************************************************************************************************************...
   5:  ***************************************************************************************************************************...
   6:  ***************************************************************************************************************************...
   7:  ***************************************************************************************************************************...
   8:  ***************************************************************************************************************************...
   9:  ***************************************************************************************************************************...
  10:  ***************************************************************************************************************************...
  11:  ***************************************************************************************************************************...
  12:  ***************************************************************************************************************************...
  13:  ***************************************************************************************************************************...
  14:  ***************************************************************************************************************************...
  15:  ***************************************************************************************************************************...
  16:  ***************************************************************************************************************************...
  17:  ***************************************************************************************************************************...
  18:  ***************************************************************************************************************************...
  19:  ***************************************************************************************************************************...
  20:  ***************************************************************************************************************************...
  21:  ***************************************************************************************************************************...
  22:  ***************************************************************************************************************************...
  23:  ***************************************************************************************************************************...
  24:  ***************************************************************************************************************************...
  25:  **********************************************************...
  26:  ***********************************...


*****  FRAME-MANAGER TEST COMPLETED SUCCESSFULLY *****


==================  KPL PROGRAM TERMINATION  ====================

****  A 'debug' instruction was encountered  *****
Done!  The next instruction to execute will be:
001078: C0100000      sethi   0x0000,r1      ! 0x00001088 = 4232 (noGoMessage)

Entering machine-level debugger...
=========================================================
=====                                               =====
=====         The BLITZ Machine Emulator            =====
=====                                               =====
=====  Copyright 2001-2007, Harry H. Porter III     =====
=====                                               =====
=========================================================

Enter a command at the prompt.  Type 'quit' to exit or 'help' for
info about commands.
>
```