

Javelin Stamp IDE

File Edit Project Debug Help

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testJVM4.java

```

1 import stamp.core.*;
2
3 public class testJVM4 (
4

```

(Debug) Resetting

[Debug] Got character \$0F 'f'
[Debug] Got kComStartLoad
[Debug] Transmit: \$0E 'f'
[Debug] Got character \$0E 'f'
[Debug] Got character \$50 'P'
[Debug] Got kComEndLoad
[Debug] TSXComm:DownloadBreakpoints(0)
[Debug] TSXComm:SendSimpleCommand(12) kComDownloadBk }
[Debug] Transmit: \$0C 'f'
[Debug] Discarding echo \$0C 'f'
[Debug] Got character \$FFFFF8C 'f' reply
[Debug] TSXComm:received byte \$8C '' in 0 ms
[Debug] Transmitting packet
[Debug] Discarding echo \$0A 'f' kComBreakpoints
[Debug] Discarding echo \$00 ' ' count
[Debug] Discarding echo \$FFFFFFF6 'o' checksum
[Debug] Got character \$FFFFFFF8A 'f' reply
[Debug] TSXComm:received byte \$8A '' in 10 ms
[Debug] TSXComm:QueryConfig
[Debug] TSXComm:SendCommand(8) kComConfig
[Debug] Transmit: \$08 'f'
[Debug] Discarding echo \$08 'f'
[Debug] Got character \$7E 'f' reset flag
[Debug] Flag - resetting
[Debug] Got character \$FFFFFFF88 'f' reply (packet[0])
[Debug] Receive \$88 'f'
[Debug] Got character \$00 ' ' memsize_lsb
[Debug] Receive \$00 ' '
[Debug] Got character \$FFFFFFF80 'f' memsize_msb
[Debug] Receive \$80 'f'
[Debug] Got character \$00 ' ' progsize_lsb } constant, does not reflect
[Debug] Receive \$00 ' ' progsize_msb } true program size
[Debug] Got character \$20 ' ' heapbase_lsb
[Debug] Receive \$20 ' '
[Debug] Got character \$FFFFFFF 'f'
[Debug] Receive \$FF 'f'

1 : 10 Insert

Debugger

Run Stop Step Into Step Over Breakpoint Reset Messages

Call Stack | Static Variables | Memory Usage

Total Memory 32768 (in bytes)

Used: 3707
Code 3478
Strings 152
Static Variables 34
Heap 35
Stack 8

Free 29061

Stack: 8 Heap: 35

Proportions:

Class	Code Size	Strings Size
testJVM4	94	36
java.lang.Throwable	83	10
java.lang.System	47	0
java.lang.String	682	0
java.io.PrintStream	214	58
stamp.core.Terminal	224	0
java.lang.Object	38	0
java.lang.IllegalArgumentException	78	0
java.lang.NullPointerException	78	0
java.lang.IndexOutOfBoundsException	78	0
java.lang.OutOfMemoryError	72	0
java.lang.StringBuffer	950	30
stamp.core.CPU	545	0
java.lang.RuntimeException	72	0
java.lang.Error	43	0
java.lang.Math	83	0
stamp.core.VirtualPeripheral	34	0
java.lang.Exception	43	0

testJVM4.java

```

1 import stamp.core.*;
2
3 public class testJVM4 {
4

```

[Debug] Got character \$7F '1'
[Debug] Receive \$7F '1'
[Debug] Got character \$5A 'Z'
[Debug] Receive \$5A 'Z'
[Debug] Got character \$7E '~'
[Debug] Flag - end
[Debug] TSXComm:QueryStatus
[Debug] TSXComm:SendCommand(1) kComStatus
[Debug] Transmit: \$01 '1'
[Debug] Discarding echo \$01 '1'
[Debug] Got character \$7E '~'
[Debug] Flag - resetting
[Debug] Got character \$FFFFFF81 '1'
[Debug] Receive \$81 '1'
[Debug] Got character \$FFFFFF8F '1'
[Debug] Receive \$8F '1'
[Debug] Got character \$04 '1'
[Debug] Receive \$04 '1'
[Debug] Got character \$00 '
[Debug] Receive \$00 '
[Debug] Got character \$25 '%'
[Debug] Receive \$25 '%'
[Debug] Got character \$FFFFFFC7 'C'
[Debug] Receive \$C7 'C'
[Debug] Got character \$7E '~'
[Debug] Flag - end
[Debug] JVM PC: \$048E activity \$00 bytecode \$25=invokestatic
[Debug] Method offset = \$048E, pc = \$048E, jPC = \$FFFFFFF1, line = 10
[Debug] Line number translation: file=C:\javelin\testJVM4.java pc=\$048E line=10
[Debug] TSXComm:QueryStack
[Debug] TSXComm:SendCommand(7) kComStack
[Debug] Transmit: \$07 '1'
[Debug] Discarding echo \$07 '1'
[Debug] Got character \$7E '~'
[Debug] Flag - resetting
[Debug] Got character \$FFFFFF87 '1'
[Debug] Receive \$87 '1'

Handwritten notes:
- heapbase...msb
- checksum
- end flag
- query config
- kComStatus
- reset flag
- reply (packet[0])
- pc = (lsb (msb << 8)) - 1
- activity
- bytecode
- checksum
- end flag
- kComStack
- reset flag
- reply (packet[0])
- query status
- query stack

1:10 Insert

Run Stop Step Into Step Over Breakpoint Reset Messages

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```
testJVM4.java
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3 public class testJVM4 (
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```

[Debug] Got character '\$38' '8'
 [Debug] Receive '\$38' '8'
 [Debug] Got character '\$0E' 'I'
 [Debug] Receive '\$0E' 'I'
 [Debug] Got character '\$30' '0'
 [Debug] Receive '\$30' '0'
 [Debug] Got character '\$0E' 'I'
 [Debug] Receive '\$0E' 'I'
 [Debug] Got character '\$25' '%'
 [Debug] Receive '\$25' '%'
 [Debug] Got character '\$00' '
 [Debug] Receive '\$00' '
 [Debug] Got character '\$00' '
 [Debug] Receive '\$00' '
 [Debug] Got character '\$00' '
 [Debug] Receive '\$00' '
 [Debug] Got character '\$FFFFFFF' 'y'
 [Debug] Receive '\$FF' 'y'
 [Debug] Got character '\$FFFFFFF' 'y'
 [Debug] Receive '\$FF' 'y'
 [Debug] Got character '\$00' '
 [Debug] Receive '\$00' '
 [Debug] Got character '\$00' '
 [Debug] Receive '\$00' '
 [Debug] Got character '\$06' 'Y'
 [Debug] Receive '\$06' 'Y'
 [Debug] Got character '\$FFFFFFCC' 'i'
 [Debug] Receive '\$CC' 'i'
 [Debug] Got character '\$7E' 'm'
 [Debug] Flag - end
 [Debug] TSXComm: QueryHeap
 [Debug] Transmitting packet
 [Debug] Discarding echo '\$09' 'r'
 [Debug] Discarding echo '\$00' '
 [Debug] Discarding echo '\$00' '

sp-lsb
 sp-msb
 fp-lsb
 fp-msb
 mp-lsb
 mp-msb
 stack[0]
 stack[1]
 stack[2]
 stack[3]
 stack[4]
 stack[5]
 stack[6]
 stack[7]
 checksum
 endFlag

mp-msb
 mp-lsb
 old fp-msb
 old fp-lsb
 jvmPC-msb
 jvmPC-lsb
 } length = 6
 } length ? msb
 } lsb

Query STACK

hCom Heap
 rangeStart-msb
 rangeStart-lsb

Query HEAP

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Build Search for 'activity'

Start Par... Prop... C:\Pr... C:\ja... jem... Reke... C++... Jave... 14:13

```

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testJVM4.java
1 import stamp.core.*;
2
3 public class testJVM4 {
4
5     static int p = 0x1234;
6     static int q = 0x2345;
7     static String sconst = "hello";
8
9     static void main() {
10      System.out.println("Hello World");
11      int c = Terminal.getChar();
12      while (true) {
13      }
14      }
15 }
16

```

```

[Debug] Discarding echo $00 '
[Debug] Discarding echo $01 '
[Debug] Got character $7E '
[Debug] Flag - resetting
[Debug] Got character $FFFFFF89 '
[Debug] Receive $89 '
[Debug] Got character $7F '
[Debug] Receive $7F '
[Debug] Got character $FFFFFFDD '
[Debug] Receive $DD '
[Debug] Got character $1D '
[Debug] Receive $1D '
[Debug] Got character $00 '
[Debug] Receive $00 '
[Debug] Got character $7E '
[Debug] Flag - end

```

range length - msb

range length - lsb

reset flag

reply (packet[0])

hp - msb

hp - lsb

heap[0]

checksum

end flag

query HEAP

Run Stop Step Into Step Over Breakpoint Reset Messages

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Free 29061

Proportions: Stack: 8 Heap: 35

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