```
execve("/usr/local/jdk1.7.0/bin/java", ["java", "SysCalls"], [/* 19 vars */])
= 0
brk(0)
                                        = 0x197c000
access("/etc/ld.so.nohwcap", F_OK)
                                        = -1 ENOENT (No such file or
directory)
mmap(NULL, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e5a000
readlink("/proc/self/exe", "/usr/local/jdk1.7.0/bin/java", 4096) = 28
access("/etc/ld.so.preload", R_OK) = -1 ENOENT (No such file or
directory)
// The following sys calls try to load java library files but does not find
any of them
open("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/tls/x86_64/libpthread.so.0",
O_RDONLYIO_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/tls/x86_64", 0x7fff061eee30) =
-1 ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/tls/libpthread.so.0", O_RDONLY|
O_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/tls", 0x7fff061eee30) = -1
ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/x86_64/libpthread.so.0",
O_RDONLYIO_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/x86_64", 0x7fff061eee30) = -1
ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../lib/amd64/jli/libpthread.so.0", O_RDONLY|
O_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../lib/amd64/jli", 0x7fff061eee30) = -1 ENOENT
(No such file or directory)
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/tls/x86_64/libpthread.so.
0", 0_RDONLYIO_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/tls/x86_64",
0x7fff061eee30) = -1 ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/tls/libpthread.so.0",
0_RDONLYIO_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/tls", 0x7fff061eee30) = -1
ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/x86_64/libpthread.so.0",
0_RDONLYIO_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/x86_64", 0x7fff061eee30) =
-1 ENOENT (No such file or directory)
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/libpthread.so.0", O_RDONLY|
O_CLOEXEC) = -1 ENOENT (No such file or directory)
stat("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli", {st_mode=S_IFDIR\0755,
st_size=4096, ...) = 0
open("/etc/ld.so.cache", O_RDONLYIO_CLOEXEC) = 3
```

```
fstat(3, {st_mode=S_IFREG|0644, st_size=37168, ...}) = 0
mmap(NULL, 37168, PROT_READ, MAP_PRIVATE, 3, 0) = 0x7fcab5e50000
// This closes the ld.so.cache file
close(3)
                                    = 0
access("/etc/ld.so.nohwcap", F_OK) = -1 ENOENT (No such file or
directory)
// This opens the thread shared object file and returns the file descriptor 3
open("/lib/x86_64-linux-qnu/libpthread.so.0", O_RDONLYIO_CLOEXEC) = 3
// This reads 832 bytes from the libpthread.so file
832) = 832
fstat(3, {st_mode=S_IFREG|0755, st_size=135366, ...}) = 0
mmap(NULL, 2212904, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) =
0x7fcab5a1d000
mprotect(0x7fcab5a35000, 2093056, PROT_NONE) = 0
mmap(0x7fcab5c34000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0x17000) = 0x7fcab5c34000
mmap(0x7fcab5c36000, 13352, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP\_ANONYMOUS, -1, 0) = 0x7fcab5c36000
// Close our libpthread.so file
close(3)
                                     = 0
// This opens and closes the libjli library file
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/libjli.so", O_RDONLY|
0\_CLOEXEC) = 3
832) = 832
fstat(3, {st_mode=S_IFREG|0755, st_size=102674, ...}) = 0
mmap(NULL, 2186464, PROT_READIPROT_EXEC, MAP_PRIVATE | MAP_DENYWRITE, 3, 0) =
0x7fcab5807000
mprotect(0x7fcab581d000, 2093056, PROT_NONE) = 0
mmap(0x7fcab5a1c000, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0x15000) = 0x7fcab5a1c000
close(3)
// This tries to open the libel file but the file does not exist
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/libdl.so.2", O_RDONLY|
O_CLOEXEC) = -1 ENOENT (No such file or directory)
access("/etc/ld.so.nohwcap", F_OK)
                                    = -1 ENOENT (No such file or
directory)
```

```
// This opens and closes the libdl library file
open("/lib/x86_64-linux-qnu/libdl.so.2", O_RDONLYIO_CLOEXEC) = 3
read(3, "\177ELF\2\1\1\0\0\0\0\0\0\0\0\0\1\0\0\340\r\0\0\0\0\0\0\0...,
832) = 832
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e4f000
fstat(3, {st_mode=S_IFREG|0644, st_size=14768, ...}) = 0
mmap(NULL, 2109704, PROT_READIPROT_EXEC, MAP_PRIVATE | MAP_DENYWRITE, 3, 0) =
0x7fcab5603000
mprotect(0x7fcab5605000, 2097152, PROT_NONE) = 0
mmap(0x7fcab5805000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0x2000) = 0x7fcab5805000
close(3)
// Tries to open the libc file but fails
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/libc.so.6", O_RDONLYI
O_CLOEXEC) = -1 ENOENT (No such file or directory)
                                        = -1 ENOENT (No such file or
access("/etc/ld.so.nohwcap", F_OK)
directory)
// OPens the libc file and then reads a little data and closes it
open("/lib/x86_64-linux-gnu/libc.so.6", 0_RDONLYIO_CLOEXEC) = 3
read(3, "\177ELF\2\1\1\0\0\0\0\0\0\0\0\0\3\0>
0\1\0\0\0\30\2\0\0\0\0\0\\dots, 832) = 832
fstat(3, {st_mode=S_IFREG|0755, st_size=1811128, ...}) = 0
mmap(NULL, 3925208, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) =
0x7fcab5244000
mprotect(0x7fcab53f9000, 2093056, PROT_NONE) = 0
mmap(0x7fcab55f8000, 24576, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0x1b4000) = 0x7fcab55f8000
mmap(0x7fcab55fe000, 17624, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP\_ANONYMOUS, -1, 0) = 0x7fcab55fe000
close(3)
                                        = 0
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e4e000
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e4d000
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e4c000
arch_prctl(ARCH_SET_FS, 0x7fcab5e4d700) = 0
mprotect(0x7fcab55f8000, 16384, PROT_READ) = 0
mprotect(0x7fcab5805000, 4096, PROT READ) = 0
mprotect(0x7fcab5c34000, 4096, PROT_READ) = 0
mprotect(0x7fcab5e5c000, 4096, PROT_READ) = 0
munmap(0x7fcab5e50000, 37168)
```

```
set_tid_address(0x7fcab5e4d9d0)
                                         = 19773
set_robust_list(0x7fcab5e4d9e0, 0x18)
                                         = 0
futex(0x7fff061ef72c, FUTEX_WAIT_BITSET_PRIVATE|FUTEX_CLOCK_REALTIME, 1, NULL,
7fcab5e4d700) = -1 EAGAIN (Resource temporarily unavailable)
rt_sigaction(SIGRTMIN, {0x7fcab5a23750, [], SA_RESTORER\SA_SIGINFO,
0x7fcab5a2ccb0, NULL, 8) = 0
rt_sigaction(SIGRT_1, {0x7fcab5a237e0, [], SA_RESTORER|SA_RESTART|SA_SIGINFO,
0x7fcab5a2ccb0, NULL, 8) = 0
rt_siaprocmask(SIG_UNBLOCK, [RTMIN RT_1], NULL, 8) = 0
getrlimit(RLIMIT_STACK, {rlim_cur=8192*1024, rlim_max=RLIM_INFINITY}) = 0
                                         = 0x197c000
brk(0)
brk(0x199d000)
                                         = 0x199d000
readlink("/proc/self/exe", "/usr/local/jdk1.7.0/bin/java", 4096) = 28
access("/usr/local/jdk1.7.0/lib/amd64/libjava.so", F_0K) = -1 ENOENT (No such
file or directory)
access("/usr/local/jdk1.7.0/jre/lib/amd64/libjava.so", F_OK) = 0
// This opens the jam config file and reads some information from it such as
the copyright
open("/usr/local/jdk1.7.0/jre/lib/amd64/jvm.cfg", O_RDONLY) = 3
fstat(3, {st_mode=S_IFREG10644, st_size=677, ...}) = 0
mmap(NULL, 4096, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS, -1, 0) =
0x7fcab5e59000
read(3, "# Copyright (c) 2003, Oracle and"..., 4096) = 677
read(3, "", 4096)
close(3)
                                         = 0
munmap(0x7fcab5e59000, 4096)
stat("/usr/local/jdk1.7.0/jre/lib/amd64/server/libjvm.so", {st_mode=S_IFREGI
0755, st_size=12905378, ...}) = 0
futex(0x7fcab58060b0, FUTEX_WAKE_PRIVATE, 2147483647) = 0
Opens the libjvm file and closes it
open("/usr/local/jdk1.7.0/jre/lib/amd64/server/libjvm.so", 0_RDONLYIO_CLOEXEC)
read(3, "\177ELF\2\1\1\0\0\0\0\0\0\0\0\0\3\0>
0\1\0\0\0\265\30\0\0\0\0\0\\dots, 832) = 832
fstat(3, {st_mode=S_IFREG|0755, st_size=12905378, ...}) = 0
mmap(NULL, 13251624, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) =
0x7fcab45a0000
mprotect(0x7fcab4f70000, 2097152, PROT_NONE) = 0
mmap(0x7fcab5170000, 634880, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0 \times 9 \times 40000) = 0 \times 7 \times 7 \times 10000
mmap(0x7fcab520b000, 230440, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP\_ANONYMOUS, -1, 0) = 0x7fcab520b000
close(3)
                                         = 0
```

```
// Opens the limb library file which does not exist
open("/usr/local/jdk1.7.0/bin/../jre/lib/amd64/jli/libm.so.6", O_RDONLY|
O_CLOEXEC) = -1 ENOENT (No such file or directory)
open("/etc/ld.so.cache", O_RDONLYIO_CLOEXEC) = 3
fstat(3, {st_mode=S_IFREG|0644, st_size=37168, ...}) = 0
mmap(NULL, 37168, PROT_READ, MAP_PRIVATE, 3, 0) = 0x7fcab5e50000
close(3)
access("/etc/ld.so.nohwcap", F_OK)
                                      = -1 ENOENT (No such file or
directory)
// Opens the libm library file, reading 832 bytes from it and closes it
open("/lib/x86_64-linux-gnu/libm.so.6", 0_RDONLYIO_CLOEXEC) = 3
832) = 832
fstat(3, {st_mode=S_IFREG|0644, st_size=1022320, ...}) = 0
mmap(NULL, 3117352, PROT_READ|PROT_EXEC, MAP_PRIVATE|MAP_DENYWRITE, 3, 0) =
0x7fcab42a6000
mprotect(0x7fcab439f000, 2093056, PROT_NONE) = 0
mmap(0x7fcab459e000, 8192, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_FIXED|
MAP_DENYWRITE, 3, 0xf8000) = 0x7fcab459e000
close(3)
mprotect(0x7fcab459e000, 4096, PROT_READ) = 0
munmap(0x7fcab5e50000, 37168)
mmap(NULL, 1052672, PROT_READ|PROT_WRITE, MAP_PRIVATE|MAP_ANONYMOUS|MAP_STACK,
-1, 0) = 0x7fcab5d4b000
mprotect(0x7fcab5d4b000, 4096, PROT_NONE) = 0
clone(child_stack=0x7fcab5e4aff0, flags=CLONE_VM|CLONE_FS|CLONE_FILES|
CLONE_SIGHAND|CLONE_THREAD|CLONE_SYSVSEM|CLONE_SETTLS|CLONE_PARENT_SETTID|
CLONE_CHILD_CLEARTID, parent_tidptr=0x7fcab5e4b9d0, tls=0x7fcab5e4b700,
child_tidptr=0x7fcab5e4b9d0) = 19774
futex(0x7fcab5e4b9d0, FUTEX_WAIT, 19774, NULL) = 0
exit_group(0)
                                      = ?
// Overall comparison is that Java does not explicitly load the test.txt file
and Java instead tries to read a lot more shared object files as all as the
JVM files
// that do not exist
```