```
"${OUTPUT_PATH}" -cp "/home/zbhuang/OpenJDK/javaapps/" -XX:+UnlockDiagnosticVMOptions -XX:+PrintStubCode Hello
        "${OUTPUT_PATH}" -cp "/home/zbhuang/OpenJDK/javaapps/" Hello
        StubGenerator::generate_call_stub (this=0x7ffff5ad8980, return address=@0x7ffff73aa680: 0x0) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86
        StubGenerator::generate_initial (this=0x7ffff5ad8980) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/stubGenerator_x86_64.cpp:4047
        StubGenerator::StubGenerator (this=0x7ffff5ad8980, code=0x7ffff5ad8a30, all=false) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/stubGe
 8
        StubGenerator_generate (code=0x7ffff5ad8a30, all=false) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/stubGenerator_x86_64.cpp:4178
        StubRoutines::initialize1 () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/stubRoutines.cpp:176
        stubRoutines init1 () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/stubRoutines.cpp:316
10
11
        init_globals () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/init.cpp:103
        Threads::create_vm (args=0x7ffff5ad8e80, canTryAgain=0x7ffff5ad8e03) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/thread.cpp:343
13
        JNI_CreateJavaVM (vm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, args=0x7ffff5ad8e80) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/prims/jni.cr
        InitializeJVM (pvm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, ifn=0x7ffff5ad8f30) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:1240
        JavaMain ( args=0x7fffffffadf0) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:376
15
16
        start thread (arg=0x7ffff5ad9700) at /build/glibc-Cl5G7W/glibc-2.23/nptl/pthread create.c:333
        {\tt clone~()~at~/build/glibc-C15G7W/glibc-2.23/misc/../sysdeps/unix/sysv/linux/x86\_64/clone.S:109}
17
18
19
        Parameter value - kind=
        AbstractInterpreter::zerolocals
21
        AbstractInterpreter::zerolocals synchronized
22
        AbstractInterpreter::empty
        AbstractInterpreter::accessor
24
        AbstractInterpreter::abstract
25
        AbstractInterpreter::java_lang_math_sin
26
        AbstractInterpreter::java_lang_math_cos
27
        AbstractInterpreter::java_lang_math_tan
28
        AbstractInterpreter::java_lang_math_abs
29
        AbstractInterpreter::java_lang_math_sqrt
30
        AbstractInterpreter::java_lang_math_log
        AbstractInterpreter::java_lang_math_log10
        AbstractInterpreter::java_lang_math_exp
32
33
        AbstractInterpreter::java_lang_math_pow
34
        AbstractInterpreter::java_lang_ref_reference_get
35
        AbstractInterpreter::java_util_zip_CRC32_update
36
        AbstractInterpreter::java_util_zip_CRC32_updateBytes
37
        AbstractInterpreter::native
38
        AbstractInterpreter::native_synchronized
39
       Interpreter Generator:: generate\_normal\_entry \ (this=0x7ffff5ad8b40, synchronized=false) \ at \ /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/ten AbstractInterpreterGenerator:: generate\_method\_entry \ (this=0x7ffff5ad8b40, kind=AbstractInterpreter:: zerolocals) \ at \ /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/ten AbstractInterpreter:: zerolocals) \ at \ /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/ten AbstractInterpreter:: zerolocals) \ at \ /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/ten AbstractInterpreter: zerolocals) \ at \ /home/zbhuang/openJDK/jdk8u/hotspot/src/cpu/x86/vm/ten Ab
40
41
        TemplateInterpreterGenerator::generate_all (this=0x7ffff5ad8b40) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/interpreter/templateInterpreter/
43
        InterpreterGenerator::InterpreterGenerator (this=0x7ffff5ad8b40, code=0x7ffff00312c0) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/cpu/x86/vm/ten
        TemplateInterpreter::initialize () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/interpreter/templateInterpreter.cpp:52
44
        interpreter_init () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/interpreter/interpreter.cpp:118
45
46
        init_globals () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/init.cpp:109
        Threads::create_vm (args=0x7ffff5ad8e80, canTryAgain=0x7ffff5ad8e03) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/thread.cpp:343
47
48
        JNI_CreateJavaVM (vm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, args=0x7ffff5ad8e80) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/prims/jni.cr
        InitializeJVM (pvm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, ifn=0x7ffff5ad8f30) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:1240
49
        JavaMain (_args=0x7fffffffadf0) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:376
50
        start\_thread \ (arg=0x7ffff5ad9700) \ at \ /build/glibc-C15G7W/glibc-2.23/nptl/pthread\_create.c: 333 \ argument of the control of the contr
51
52
        clone () at /build/glibc-Cl5G7W/glibc-2.23/misc/../sysdeps/unix/sysv/linux/x86_64/clone.S:109
53
54
        Method::link_method (this=0x7ffff3800580, h_method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHandl
        InstanceKlass::link_methods (this=0x100000f30, __the_thread_ =0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/instanceKlass::link_class_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 < vtable for instanceKlass:
55
56
57
        InstanceKlass::link_class_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtable for inst</pre>
58
        InstanceKlass::link_class_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtable for inst
        InstanceKlass::link class impl (this oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = { vptr.AllocatedObj = 0x7ffff72da438 <vtable for inst</pre>
59
       InstanceKlass::link_class_or_fail (this=0x100004f38, _the_thread_=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/ir universe_post_init () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/memory/universe.cpp:1068
60
61
62
        init_globals () at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/init.cpp:130
63
        Threads::create_vm (args=0x7ffff5ad8e80, canTryAgain=0x7ffff5ad8e03) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/thread.cpp:343
        JNI_CreateJavaVM (vm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, args=0x7ffff5ad8e80) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/prims/jni.cr
        InitializeJVM (pvm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, ifn=0x7ffff5ad8f30) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:1240
JavaMain (_args=0x7ffffffadf0) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:376
65
66
67
        start_thread (arg=0x7ffff5ad9700) at /build/glibc-Cl5G7W/glibc-2.23/npt1/pthread_create.c:333
68
        clone () at /build/glibc-Cl5G7W/glibc-2.23/misc/../sysdeps/unix/sysv/linux/x86_64/clone.S:109
       JavaCalls::call_helper (result=0x7ffff5ad8690, m=0x7ffff5ad86c0, args=0x7ffff5ad86e0, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jos::os_exception_wrapper (f=0x7ffff664ac74 <JavaCalls::call_helper(JavaValue*, methodHandle*, JavaCallArguments*, Thread*)>, value=0x7ffff5ad86
70
71
        JavaCalls::call (result=0x7ffff5ad8690, method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHandle+16
73
        InstanceKlass::call_class_initializer (this=0x100000f30, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oop
InstanceKlass::initialize_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtable for inst
74
        InstanceKlass::initialize (this=0x100000f30, the thread =0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/instanceKl
76
        InstanceKlass::initialize_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtable for inst
77
78
        InstanceKlass::initialize (this=0x1000016d8, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/instanceKl
79
        initialize\_class \ (class\_name=0x7ffff4023130, \ \_the\_thread\_=0x7ffff000d800) \ at \ /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/thread.
80
        Threads::create_vm (args=0x7ffff5ad8e80, canTryAgain=0x7ffff5ad8e03) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/runtime/thread.cpp:350
        JNI_CreateJavaVM (vm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, args=0x7ffff5ad8e80) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/prims/jni.cr
        InitializeJVM (pvm=0x7ffff5ad8ed8, penv=0x7ffff5ad8ee0, ifn=0x7ffff5ad8f30) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:1240
JavaMain (_args=0x7ffffffadf0) at /home/zbhuang/OpenJDK/jdk8u/jdk/src/share/bin/java.c:376
82
83
        start_thread (arg=0x7ffff5ad9700) at /build/glibc-C15G7W/glibc-2.23/nptl/pthread_create.c:333
84
85
        clone () at /build/glibc-C15G7W/glibc-2.23/misc/../sysdeps/unix/sysv/linux/x86_64/clone.S:109
```

140

141 142 143 ?? () at null:

```
JavaCalls::call_helper (result=0x7ffff5ad6600, m=0x7ffff5ad6630, args=0x7ffff5ad6650, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/j
  88
           os::os_exception_wrapper (f=0x7ffff664ac74 <JavaCalls::call_helper(JavaValue*, methodHandle*, JavaCallArguments*, Thread*)>, value=0x7ffff5ad66
  89
           JavaCalls::call (result=0x7ffff5ad6600, method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHandle+16</pre>
           InstanceKlass::call_class_initializer_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtace="from:"> vtackObj> = {_vptr.AllocatedObj = 0x7fff72da438 <vtace="from:"> vtackObj> = {_vp
  90
           InstanceKlass::call_class_initializer (this=0x100018120, __the_thread_=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oop
InstanceKlass::initialize_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {\text{vptr.AllocatedObj} = 0x7ffff72da438 <\text{vtable for inst}}}
  91
  92
           InstanceKlass::initialize (this=0x100018120, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/instanceKl LinkResolver::resolve_static_call (result=00x7ffff5ad6c10: {_resolved_klass = {<StackObj> = {_vptr.AllocatedObj = 0x7ffff72d5}}
  93
  94
  95
           LinkResolver::resolve_invokestatic (result=@0x7ffff5ad6c10: {_resolved_klass = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72c
  96
           LinkResolver::resolve_invoke (result=@0x7ffff5ad6c10: {_resolved_klass = {<StackObj> = {\allocatedObj> = {\_vptr.AllocatedObj = 0x7ffff72d9fd8 <
  97
           InterpreterRuntime::resolve_invoke (thread=0x7ffff000d800, bytecode=Bytecodes::_invokestatic) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/
  98
           ?? () at null:
  99
           ?? () at null:
100
           ?? () at null:
101
           ?? () at null:
102
           ?? () at null:
103
           ?? () at null:
104
           ?? () at null:
105
           ?? () at null:
          JavaCalls::call_helper (result=0x7ffff5ad6d10, m=0x7ffff5ad6d40, args=0x7ffff5ad6d60, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jos::os_exception_wrapper (f=0x7ffff664ac74 <JavaCalls::call_helper(JavaValue*, methodHandle*, JavaCallArguments*, Thread*)>, value=0x7ffff5ad6c
107
108
109
           JavaCalls::call (result=0x7ffff5ad6d10, method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHandle+16</pre>
110
           InstanceKlass::call_class_initializer_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 <vtackobj}
           InstanceKlass::call_class_initializer (this=0x100006838, __the_thread__=0x7ffff000d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oop InstanceKlass::initialize_impl (this_oop={<KlassHandle> = {<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72da438 < vtable for inst
111
112
           InstanceKlass::initialize (this=0x100006838, _the_thread_=0x7ffff600d800) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/oops/instanceKl InterpreterRuntime::_new (thread=0x7ffff000d800, pool=0x7fffd3831b60, index=16) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/interpreter
113
114
115
           ?? () at null:
116
           TemplateInterpreter::_active_table () at null:
117
           ?? () at null:
118
           ?? () at null:
119
           ?? () at null:
           ?? () at null:
121
           ?? () at null:
122
           ?? () at null:
123
124
           SharedRuntime::generate_native_wrapper (masm=0x7ffff5ad5fd0, method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtabl
           AdapterHandlerLibrary::create_native_wrapper (method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHar
125
126
           CompileBroker::compile_method (method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for methodHandle+16>}, <No c
127
           AdvancedThresholdPolicy::submit_compile (this=0x7ffff0074dc0, mh={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable f
           SimpleThresholdPolicy::compile (this=0x7ffff0074dc0, mh={<StackObj> = {\AllocatedObj> = {\_vptr.AllocatedObj = 0x7ffff72d99f0 <\vtable for methoc AdvancedThresholdPolicy::method_invocation_event (this=0x7ffff0074dc0, mh={\<StackObj> = {\AllocatedObj> = {\_vptr.AllocatedObj} = 0x7ffff72d99f0}
128
129
           SimpleThresholdPolicy::event (this=0x7ffff0074dc0, method={<StackObj> = {<AllocatedObj> = {_vptr.AllocatedObj = 0x7ffff72d99f0 <vtable for method={
130
           InterpreterRuntime::frequency_counter_overflow_inner (thread=0x7ffff000d800, branch_bcp=0x0) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/v
131
132
           InterpreterRuntime::frequency_counter_overflow (thread=0x7ffff000d800, branch_bcp=0x0) at /home/zbhuang/OpenJDK/jdk8u/hotspot/src/share/vm/inte
133
           ?? () at null:
134
           ?? () at null:
135
           ?? () at null:
136
           ?? () at null:
           ?? () at null:
137
           ?? () at null:
138
139
           ?? () at null:
```