YOUDEBUG

Scriptable Java Debugger

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Scriptable Java Debugger

Developed by Kohsuke Kawaguchi (creator of Hudson/Jenkins)
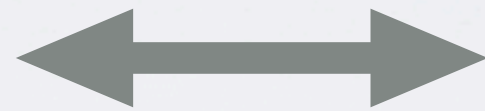
WHAT'S INSIDE

JDI*
YouDebug

your debug script

* Java Debug Interface

USE CASE

DEBUGGING

IDE ⟷ Application

source code   data

documentation   users

network access   configuration

PRODUCTION?

PRODUCTION

IDE ~~IDE~~

no installation possible

~~source code~~ source confidential
~~documentation~~ docs confidential
~~network access~~ firewall, NAT, proxies

Application

~~data~~ compliance
~~users~~ privacy
~~configuration~~ security

SOLUTION

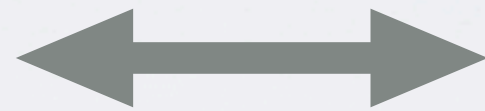Bring your debug script to the application

PRODUCTION

YouDebug   Application
debug script   data
                            users
                            configuration

BASIC RECIPE

1. Run application in debug mode

2. Create debug script

3. Run debug script using

```
> java -jar youdebug.jar -socket
    5005 yourscript.ydb
```

FEATURES

define **breakpoints**
evaluate arbitrary **expressions**
List **threads**, inspect **stack** frames
access/modify local **variables**
obtain **stack trace**
obtain **heap dump**

BREAKPOINTS

Break when reaching a specific **line**
Break when an **exception** is thrown
Break when a **field** is referenced or updated
Break when a **class** is loaded/unloaded
Break when a **thread** is created/destroyed
Break when a **method** is entered/exited
Break when a **monitor** is waited/contended

EXAMPLES (1)

Line breakpoint

```
vm.breakpoint("net.jetztgrad.buggyweb.MyServlet",35) {
  println "at buggy position in MyServlet, line 35"
}
```

EXAMPLES (11)

access/modify value

```
vm.breakpoint("net.jetztgrad.buggyweb.MyServlet",35) {
    println "age=" + age
    String ageParam = request.getParameter("age")
    println "setting age to $ageParam"
    age = ageParam
}
```
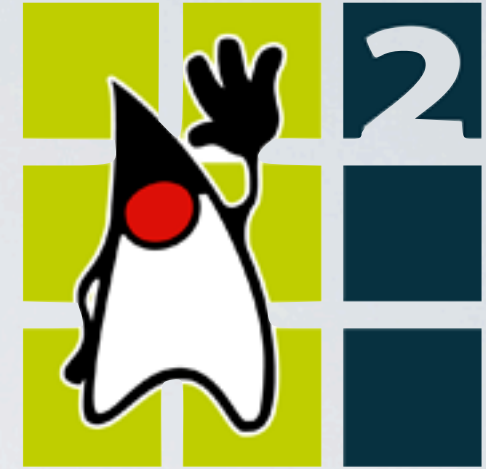
EXAMPLES (III)
get thread dump and VM info

vm.suspend()
println vm.virtualMachine.name()
println vm.virtualMachine.description()
vm.threads*.dumpThread()
vm.resume()
vm.close()

DEMO TIME

YOUDEBUG

Thank you!

Questions?

LINKS

Userguide	http://youdebug.kenai.com/user-guide.html
Introduction	http://youdebug.kenai.com/
JDI	http://docs.oracle.com/javase/6/docs/jdk/api/jpda/jdi/index.html
Download	http://repo1.maven.org/maven2/org/kohsuke/youdebug/1.3/
Source Code	https://github.com/kohsuke/youdebug