YOUDEBUG

Scriptable Java Debugger

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Scriptable Java Debugger

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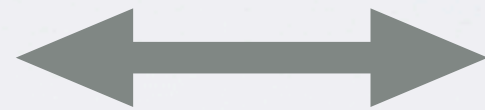
WHAT'S INSIDE

JDI*
YouDebug

your debug script

* Java Debug Interface

USE CASE

DEBUGGING

IDE ⟷ Application

source code   data

documentation   users

network access   configuration

PRODUCTION?

PRODUCTION

IDE

~~source code~~
~~documentation~~
~~network access~~

no installation possible

source confidential
docs confidential
firewall, NAT, proxies

Application
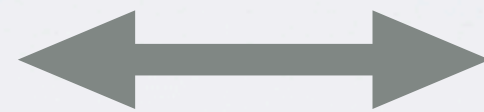
~~data~~
~~users~~
~~configuration~~

compliance
privacy
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"
}
```
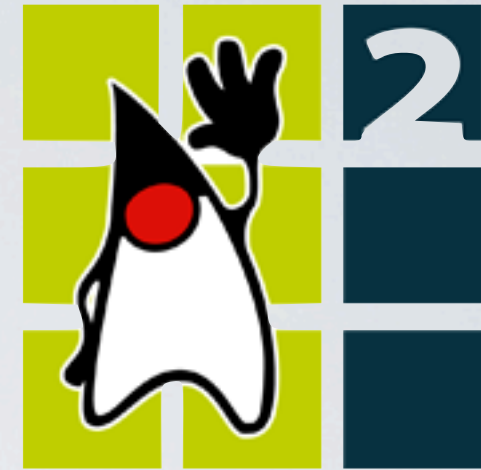
EXAMPLES (11)

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
Example Code	https://github.com/jetztgradnet/2012-04-youdebug