

# Why `Class.forName` sucks!

BJ Hargrave

Senior Technical Staff Member

IBM Lotus

<http://blog.bjhargrave.com>

## Static Class Loading

- class loading constraints [1][2]

- ◆ `Foo f = FooFactory.createFoo( )`

- `Foo.class`

- ◆ `Class.forName( "Foo" )`

- ◆ class constant pool entry

- [1] [http://java.sun.com/docs/books/jvms/second\\_edition/html/ConstantPool.doc.html#78621](http://java.sun.com/docs/books/jvms/second_edition/html/ConstantPool.doc.html#78621)
- [2] <http://www.bracha.org/classloaders.ps>

## Dynamic Class Loading

- `Class.forName`
- `ClassLoader.loadClass`

Initiating class loader  
`loadClass`

Defining class loader  
`defineClass`

`Class.forName` bleeds static constraints onto dynamic loading

Same internal VM method used to handle static class loads and dynamic class loads via `Class.forName`

## Class.forName Issues

- Initiating class loader also caches defined class along with loader constraints
- If class is cached by initiating class loader
  - ◆ `initiatingClassLoader.loadClass` is never called

`Class.forName (String)`

- ◆ not so bad since it will likely use bundle's class loader as initiating class loader
- ◆ `Class.forName(String, true, callersClassLoader)`

`Class.forName (String, boolean, ClassLoader)`

- ◆ When `ClassLoader` is the **thread context Class Loader** is the issue!

# Equinox's ContextFinder

- Thread Context Class Loader
- Never defines classes
- Delegates to bundle's class loaders based upon the call context
- Wrong results returned when multiple versions of classes present



## Recommendation

- Use `ClassLoader.loadClass` in your code
- Or `Bundle.loadClass` if you know the bundle containing the class

# Hack?

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