

What I know about Java™ Classloaders

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1. Classloading Delegation

2. The Standard Classloaders

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2.1. The System Classloader

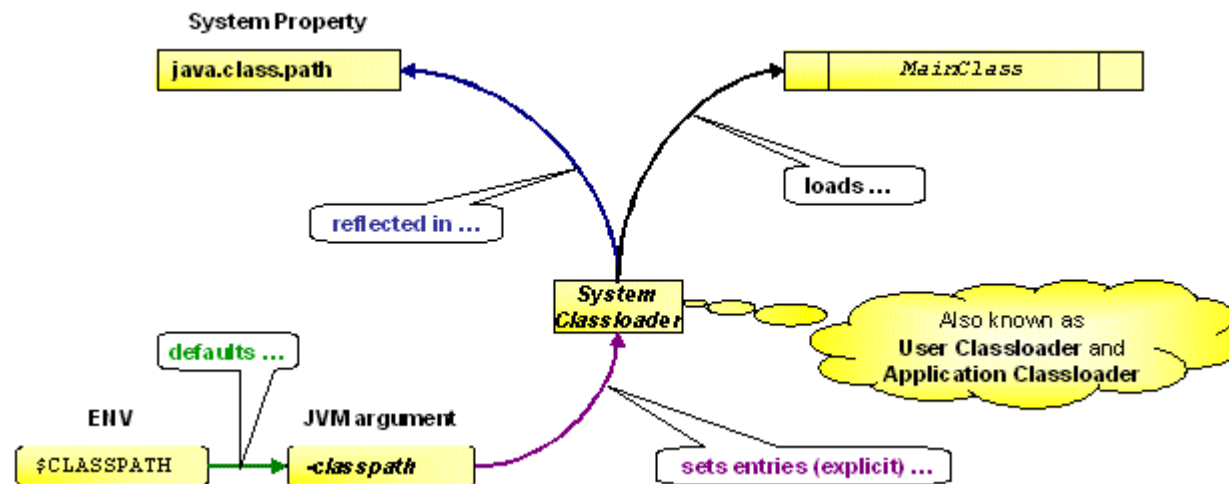
```
import java.net.URL;
import java.net.URLClassLoader;
public class TestCommonClassloaders {
    private static void analyze(URLClassLoader classloader) {
        boolean isParentAssigned
            = classloader.getParent() != null;
        System.out.println(" - parent "
            + (isParentAssigned ? "is" : "IS NOT")
            + " assigned");
        URL[] urls = classloader.getURLs();
        if (urls == null)
            System.out.println(" - urls: null");
        else {
            System.out.println(" - urls: "
                + urls.length + " entries");
            for (int i = 0; i < urls.length; i++)
                System.out.println(" -> " + urls[i]);
        }
    }
}
public static void main(String[] args) {
    URLClassLoader systemClassLoader
        = (URLClassLoader) ClassLoader
        .getSystemClassLoader();
    boolean isSystemClassLoader
        = TestCommonClassloaders.class
        .getClassLoader() == systemClassLoader;
```

```
Current ClassLoader is System Classloader
-----
java.class.path: C:\classloadertest\classes
System Classloader
- parent is assigned
- urls: 2 entries
  -> file:/C:/classloadertest/classes/
```

```

System.out.println("Current ClassLoader "
    + (isSystemClassLoader ? "is" : "IS NOT")
    + " System Classloader");
System.out.println("-----");
System.out.println("java.class.path: "
    + System.getProperty("java.class.path"));
System.out.println("System Classloader");
analyze(systemClassLoader);
}
}

```



2.2. The Extension Classloader

```

... see above ...
public static void main(String[] args) {
    ... see above ...
    System.out.println("-----");
    URLClassLoader extensionClassLoader =
        (URLClassLoader) systemClassLoader.getParent();
    System.out.println("java.ext.dirs: "
        + System.getProperty("java.ext.dirs"));
    System.out.println("Extension ClassLoader");
    analyze(extensionClassLoader);
}
}

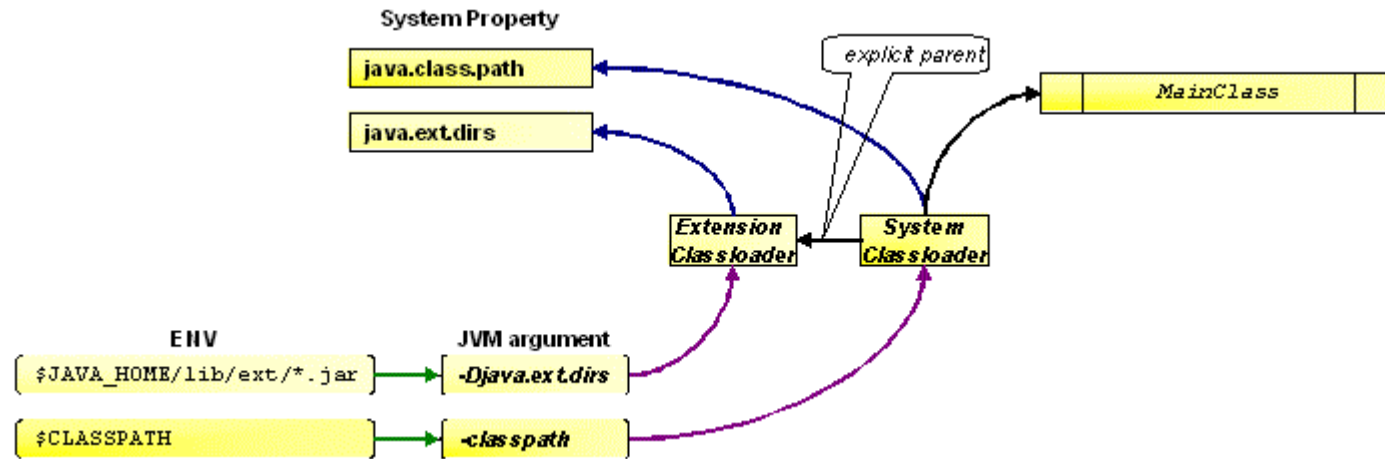
```

... see above ...

java.ext.dirs: C:\Programme\Java\jre1.5.0_02\lib\ext

Extension ClassLoader

- parent IS NOT assigned
- urls: 4 entries
 - > file:/C:/Programme/Java/jre1.5.0_02/lib/ext/dnsns
 - > file:/C:/Programme/Java/jre1.5.0_02/lib/ext/locale
 - > file:/C:/Programme/Java/jre1.5.0_02/lib/ext/sunjc
 - > file:/C:/Programme/Java/jre1.5.0_02/lib/ext/sunpk



2.3. The Bootstrap Classloader

```

... see above ...
public static void main(String[] args) {
    ... see above ...
    System.out.println("-----");
    System.out.println("sun.boot.class.path: "
        + System.getProperty("sun.boot.class.path"));
}

```

... see above ...

```

sun.boot.class.path: C:\Programme\Java\jre1.5.0_02\lib\rt.jar
C:\Programme\Java\jre1.5.0_02\lib\i18n.jar
C:\Programme\Java\jre1.5.0_02\lib\sunrs
C:\Programme\Java\jre1.5.0_02\lib\jsse.jar
C:\Programme\Java\jre1.5.0_02\lib\jce.jar
C:\Programme\Java\jre1.5.0_02\lib\charsets.jar
C:\Programme\Java\jre1.5.0_02\classes

```

