Patrick GIRARD
University of Poitiers
2009-2014©

Object-Oriented Programming
in Java™

Writing Classes and instanciating Objects in Java with BlueJ

Chapter 2 – Section 5

Faculté des Sciences
Fondamentales
et Appliquées

Université
de Poitiers

Table of contents

What is a Java program ?

- A collection of objects

- Launching a program means...
  - Giving an entry point
    - main()
  - Instantiate at least one object in that main

The entry point

- A static and public function

```
class Test {
public static void main(String args[]) {
  Personne aPerson;
  aPerson = new Person();
  aPerson.name = "JONES";
  aPerson.company = "SUN";
  aPerson.whoAmI();
}
```
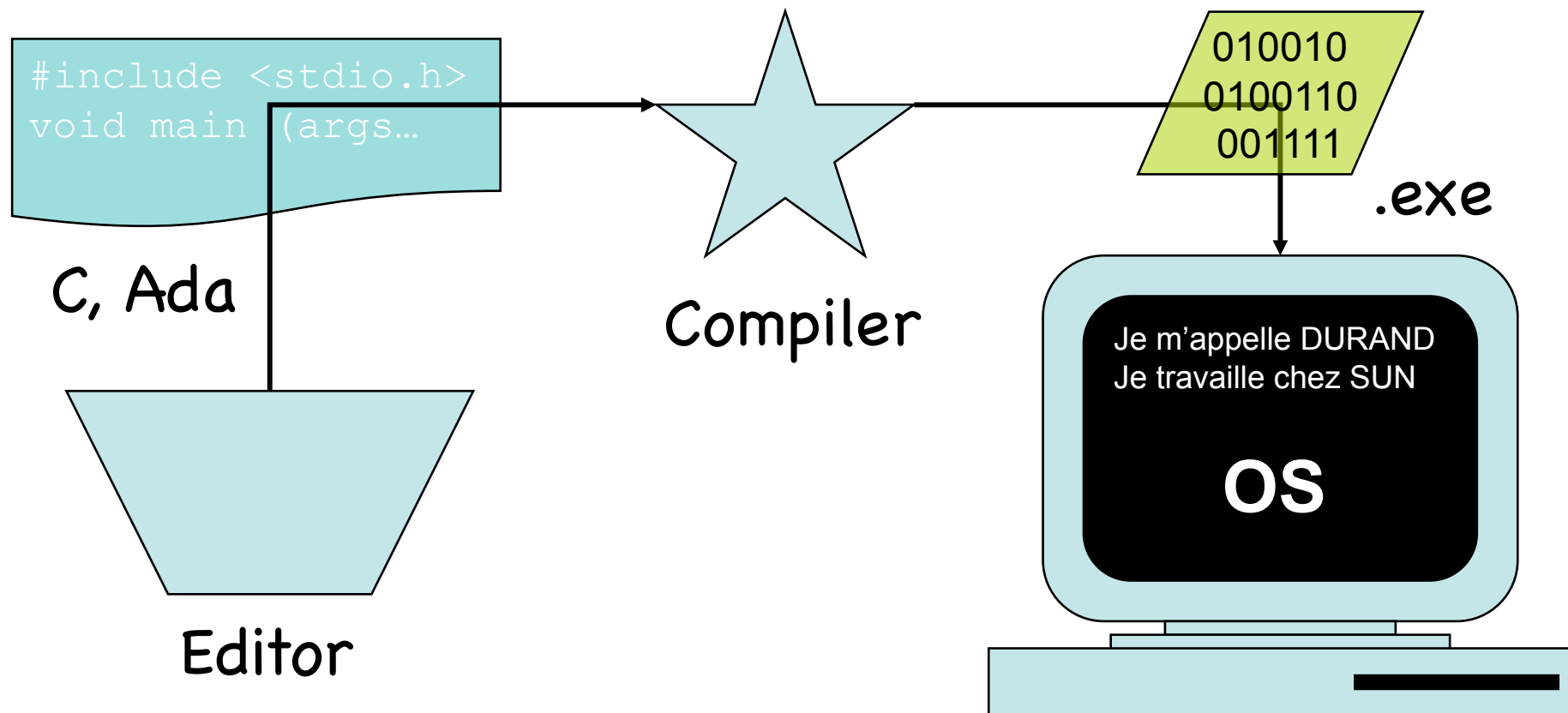
The entry point

The program arguments

```
class Test {
public static void main(String args[]){
  Personne aPerson;
  if (args.length>1) {
    aPerson = new Person(args[0], args[1]);
  } else {
    aPerson = new Person("JONES", "SUN");
  }
  aPerson.whoAmI();
  }
}
```
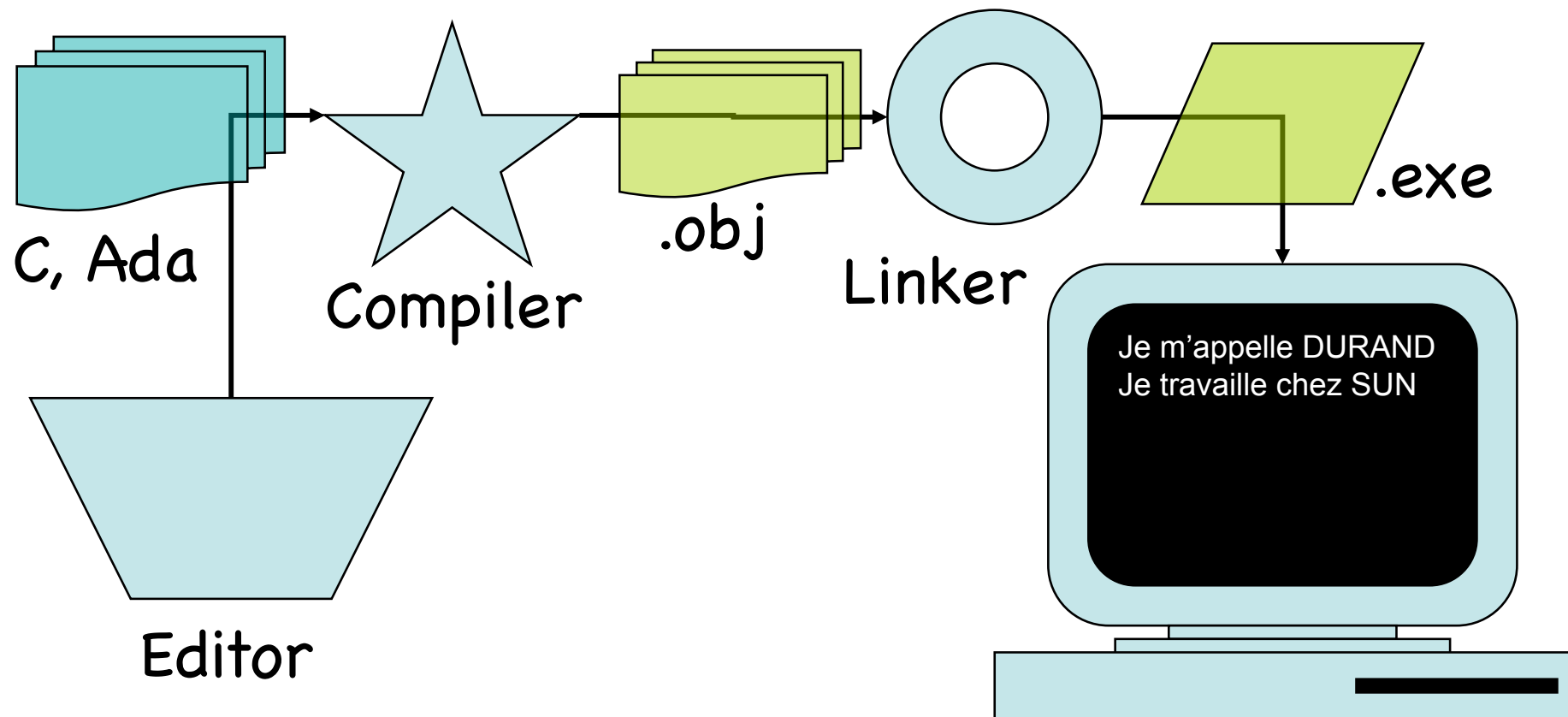
More tips: The classical cycle

```
#include <stdio.h>
void main (args…
```
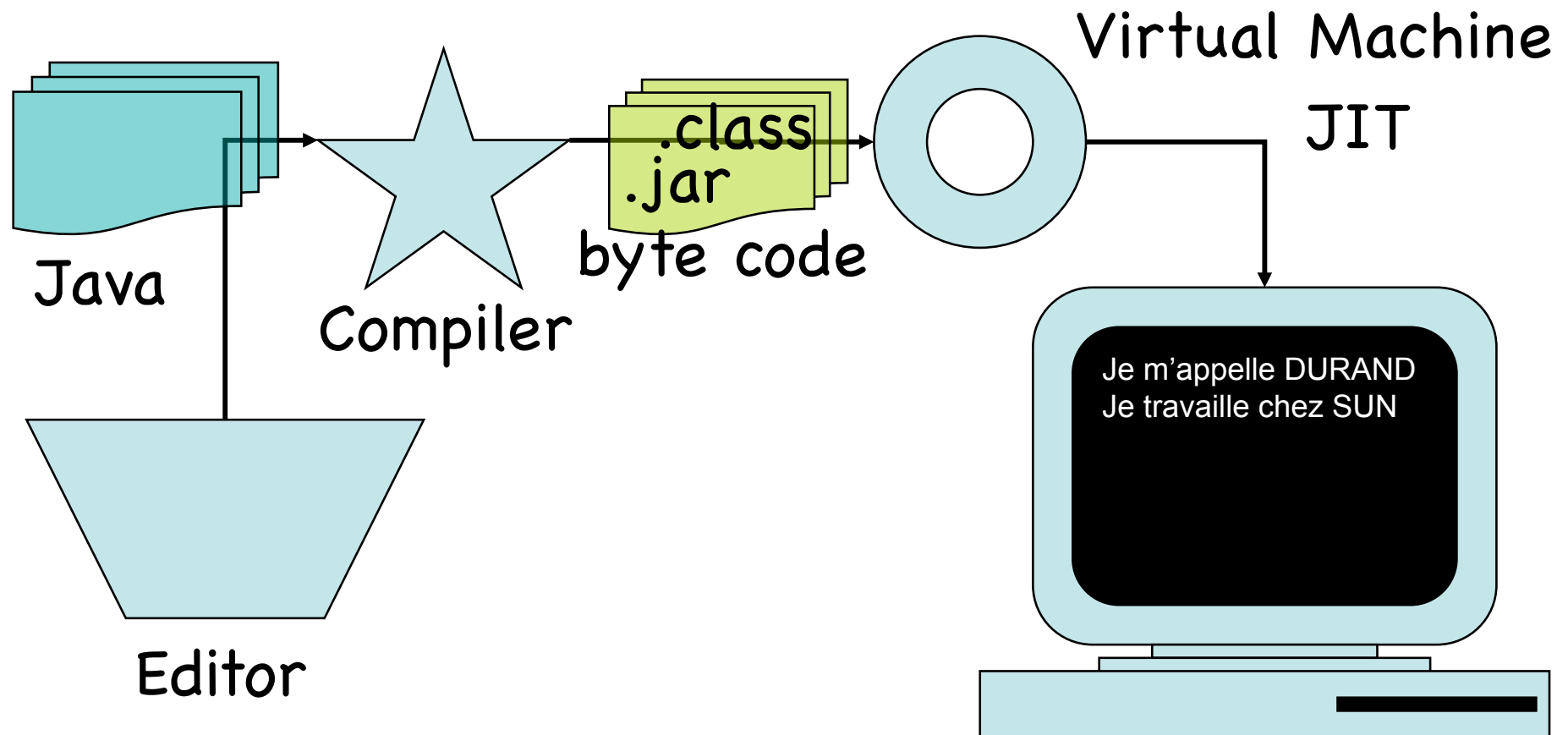
C, Ada

Editor

Compiler

010010
0100110
001111

.exe

Je m'appelle DURAND
Je travaille chez SUN

OS

The actual compilation cycle

C, Ada

Compiler

.obj

Linker

.exe

Editor

Je m'appelle DURAND
Je travaille chez SUN

The Java compilation cycle

Java

Editor

Compiler

.class
.jar

byte code

Virtual Machine
JIT

Je m'appelle DURAND
Je travaille chez SUN

Compiling in Java

Command line tools

The compiler "javac"

- javac Person.java
  - It produces a file "Person.class"
- javac Test.java

The virtual machine "java"

- java Test
- java Test.class

Java, a portable language

- Portability is available through virtual machines

  - Virtual machines are computer specific
  - Classes (.class files) can be used by any virtual machine

- No problem with internal representation

- Be careful with graphical interfaces

Patrick GIRARD
University of Poitiers
2009-2014©

Object-Oriented Programming
in Java™

Writing Classes and instanciating Objects in Java with BlueJ

end of Chapter 2