How to Install, Compile and Run Aglets Prelimiary Instructions[1]

1 Installing Aglets

Before you can start developing agents, you need to have a tool supporting this type of software. We will use Aglets which are mobile, autonomous software agents.

First, you need to install the *Aglets Software Development Kit* (ASDK). For Windows9x, follow these steps.

1. Download ASDK from Sourceforge, i.e., go to www.sourceforge.org, search for ASDK, and download Aglets for Java 2 (file `aglets-2.0.1.zip`).
2. Unzip it into its final destination, e.g., `C:\aglets`.
3. Read the `install.html` file and follow the instructions. They are repeated here in some more detail.
4. Start an MSDOS prompt and go to `C:\aglets\bin`.
5. At the top of file `ant.bat` add the following two lines. Of course, adapt them given where you Java 2 directory is.

   ```
   set java_home=C:\jdk1.3.1
   set ant_home=..
   ```

6. Run `ant`. This builds the necessary files to run aglets, actually, to run Tahiti.
7. Run `ant install-home`. This copies two files into your `C:\Windows` directory so that Tahiti can access them later.

2 Running Tahiti

You will need to run the Aglets application which is called *Tahiti*. You have installed everything. Now you can start Tahiti with

```
agletsd -f ..\cnf\aglets.props
```

So, start it up with the `agletsd` command and create one of the provided agents (or aglets) to see whether everything works. Observe the MSDOS window. It should not display any error message (some non-error output is fine).

If you want to run an additional Tahiti server on the same machine, start it up with another port address, e.g., 9000 and up as shown below . The default port number as defined in `aglets.props` is 4434.

```
agletsd -f ..\cnf\aglets.props -port 9000
```

Now create a `Hello` aglet and send it to the address `atp:\\localhost:9000`.

[1] Prepared for COMP-4640 by Roland Hübscher, `roland@eng.auburn.edu`. Last modification: January 24, 2002

3 Writing Your First Aglet

I recommend that you first simply create a modification of an existing aglet or the basic one given below. Here is an example how to create a new aglet `MyAglet` which is the same example as provided in the aglets documentation.

Create a work directory, say `myfirst`, anywhere, but not in the aglets directory tree. In that directory, create the file `MyAglet.java` with content

```
package myfirst;
import com.ibm.aglet.*;

public class MyAglet extends Aglet {
  public void run() {
     System.out.println("Hello, world!");
     setText("you can see this in the Tahiti window");
  }
}
```

Then create a batch file `makeit.bat` to compile your aglet as below. First I show the version if you use the `javac` compiler.

```
set JDK_HOME=C:\jdk1.3.1
set AGLET_HOME=C:\aglets

set CLASSPATH=.
set CLASSPATH=%CLASSPATH%;%AGLET_HOME%\lib\aglets-2.0.1.jar
set CLASSPATH=%CLASSPATH%;%AGLET_HOME%\public

%JDK_HOME%\bin\javac -d %AGLET_HOME%\public -classpath %CLASSPATH% MyAglet.java
```

Now compile the file with `makeit`. This should result, without any warnings, in file `MyAglet.class` in directory `aglets\public\myfirst`.

Now, you can run your aglet from Tahiti. In Tahiti, click on `Create` and type in the package name followed by the class name `myfirst.MyAglet` into the "Aglet name" field. Then click on `Add to List` so that your aglet appears at the bottom of the list of aglet classes.

If you want to use the much faster `jikes` instead of `javac` you need to modify `makeit.bat` as follows.

```
set JDK_HOME=C:\jdk1.3.1
set AGLET_HOME=C:\aglets

set CLASSPATH=.
set CLASSPATH=%CLASSPATH%;%AGLET_HOME%\lib\aglets-2.0.1.jar
set CLASSPATH=%CLASSPATH%;%AGLET_HOME%\public

set JIKES=C:\Progra~1\jikes-1.14\bin\jikes
set CLASSPATH=%CLASSPATH%;%JDK_HOME%\jre\lib\rt.jar

%JIKES% -d %AGLET_HOME%\public -classpath %CLASSPATH% MyAglet.java
```