Appendix F - Using JSwat for Debugging

JSwat is a graphical debugger, available free of charge - see *http://www.bluemarsh.com/*. It is not restricted to any development environment - but is a standalone debugging environment. It is flexible to use and can be used e.g. in a customer environment where you do not want to install a full development environment in order to trace and debug your applications. JSwat is written in Java and also runs on Linux-based systems.

We strongly recommend to use this debugger instead of using a `System.out.println()` way for debugging.

Usage of JSwat

JSwat supports remote debugging by the Java JPDA architecture. This means, you start Application Designer with some flags to force the virtual machine that it sends debug information to interested listeners. JSwat acts as listener for this information.

The following topics are covered below:

- Starting Application Designer in Remote Debugging Mode

- Configuring JSwat

- Running the Debug Session

Starting Application Designer in Remote Debugging Mode

There is a special batch file available for starting the default Application Designer in remote debugging mode. Have a look at the file *<installdir>\bin\GUIServer_remote.bat*:

```
cd..
cd tomcat
cd bin
set java_home=..\..\jre
set catalina_home=..
set jpda_transport=dt_socket
set jpda_address=5000
catalina jpda run
```

You see that

- the Tomcat 4.0 (Catalina) environment is started with the option "jpda";

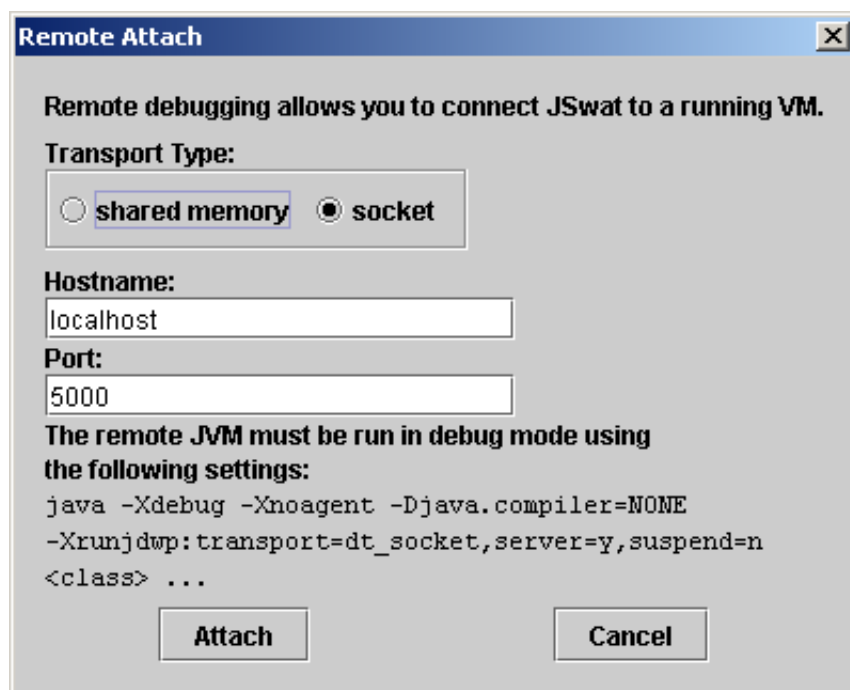- the transport protocol is "dt_socket" at port "5000"

  After starting Application Designer with these options, it runs in debug mode, i.e. remote debuggers can connect by TCP/IP to the virtual machine.
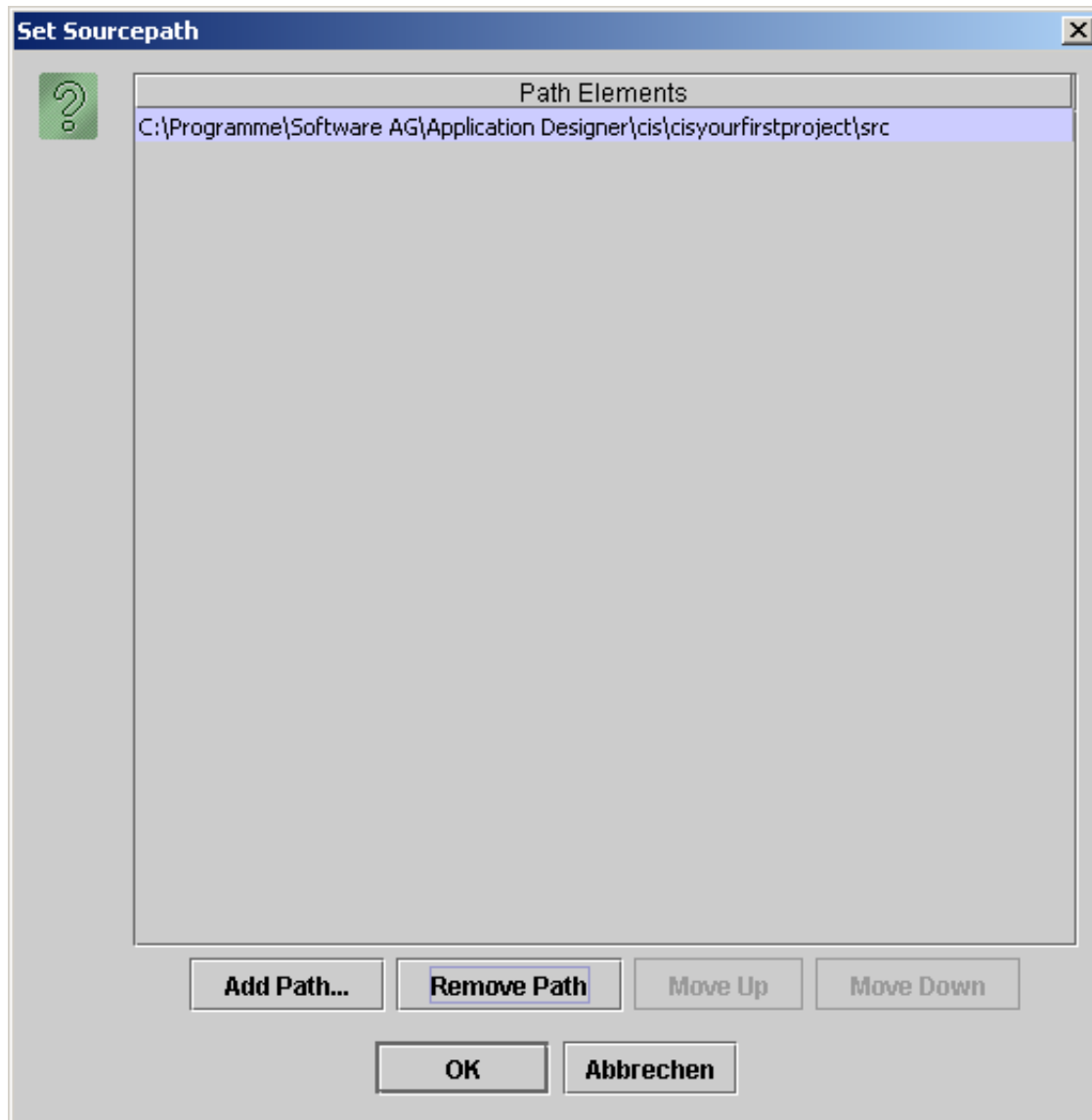
Configuring JSwat

After starting JSwat, configure two items:

- Connect the JSwat debugger to Application Designer, running in debug mode.

- Tell JSwat where the sources of your classes are located.

The connection to Application Designer is done by **Session > Attach to remote...** inside JSwat. Select the parameters according to the definition inside the *<installdir>\bin\GUIServer_remote.bat* file:

The source path is maintained by **Options > Set source path....**. In the dialog, define the location of your sources.

Running the Debug Session

See the JSwat documentation for details on how to use JSwat.