Building Web Service Applications

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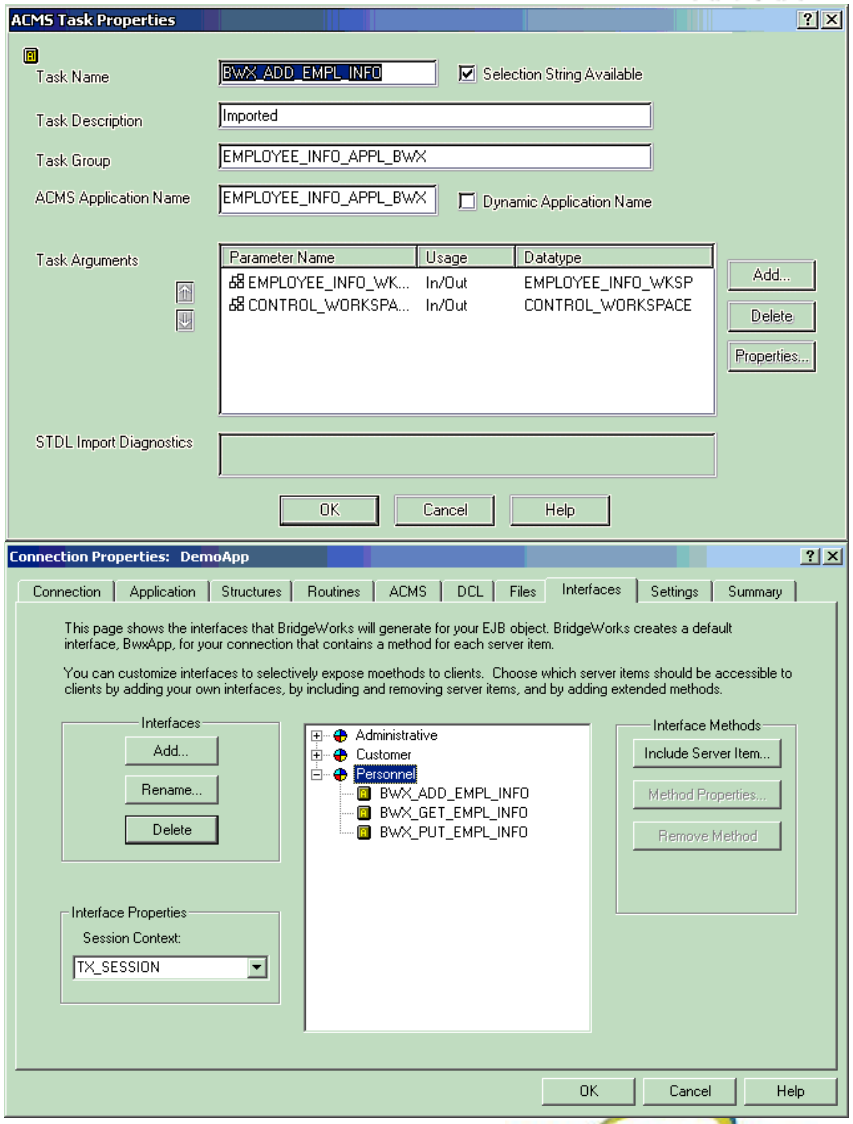
Agenda

- HP BridgeWorks
- HP BridgeWorks and BEA WebLogic Workshop
- Web Services
- WebLogic Platform and HP Integration Technologies
- Summary

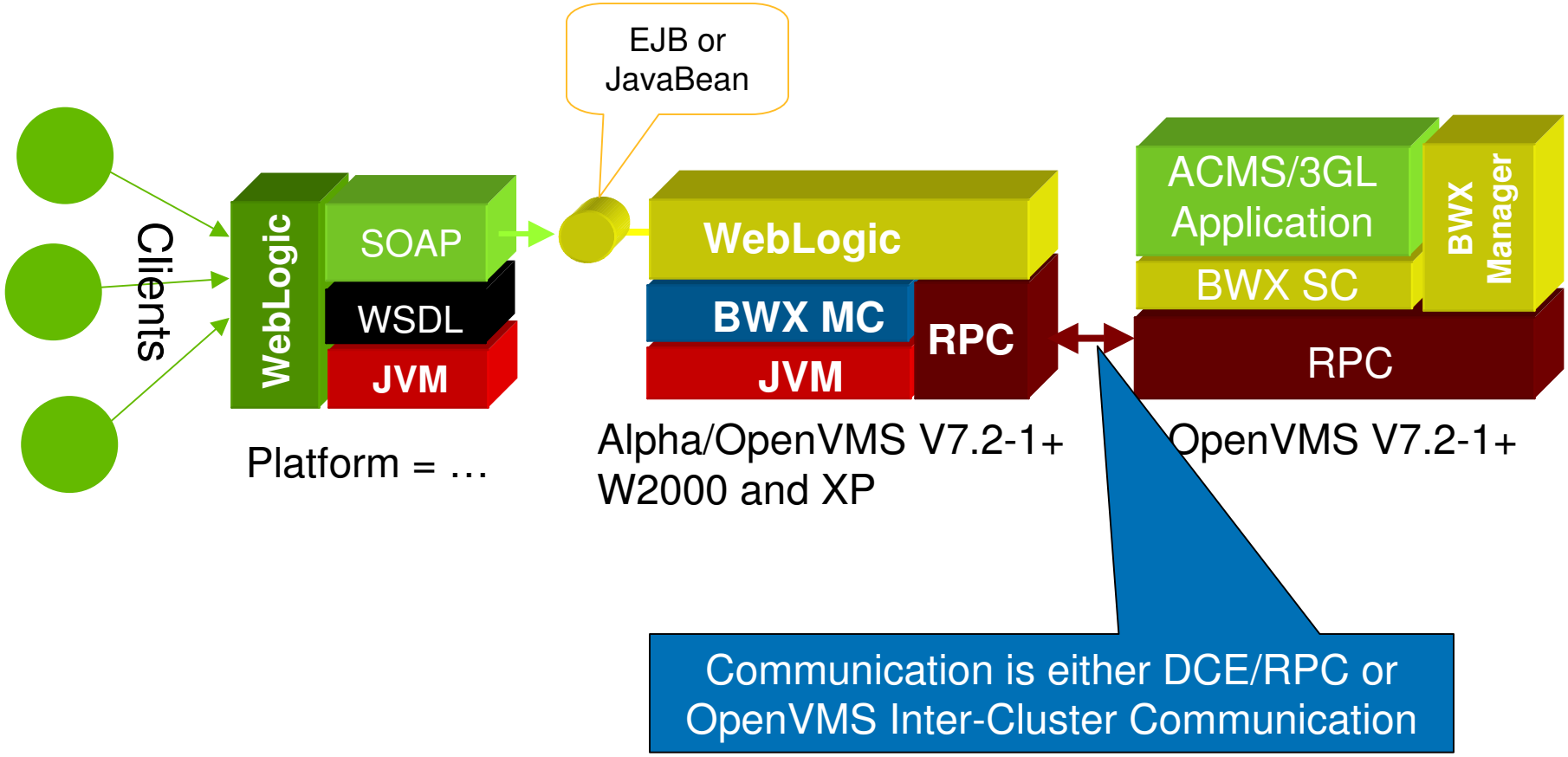
HP BridgeWorks

- Generates robust EJB Interfaces from your TP or 3GL applications
  - Creates J2EE Stateful Session Beans
  - Creates 1 EJB per interface
- Generates JavaBean Interfaces from your TP or 3GL application
  - Creates a single simple class per interface
  - J2EE environment not needed to build or run



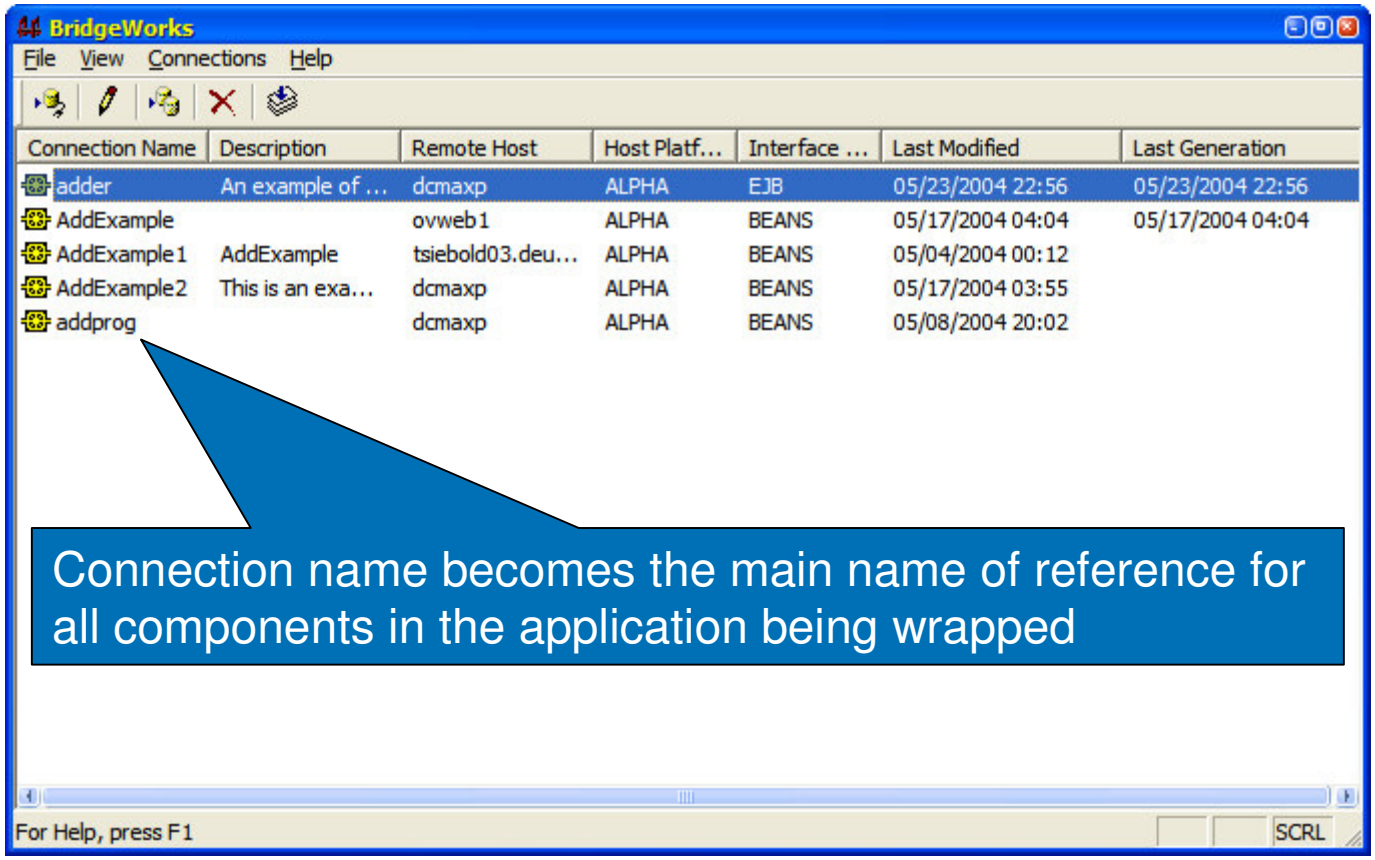
HP BridgeWorks (BWX) Components

Components in **green** you supply, **BridgeWorks** provides/generates the rest



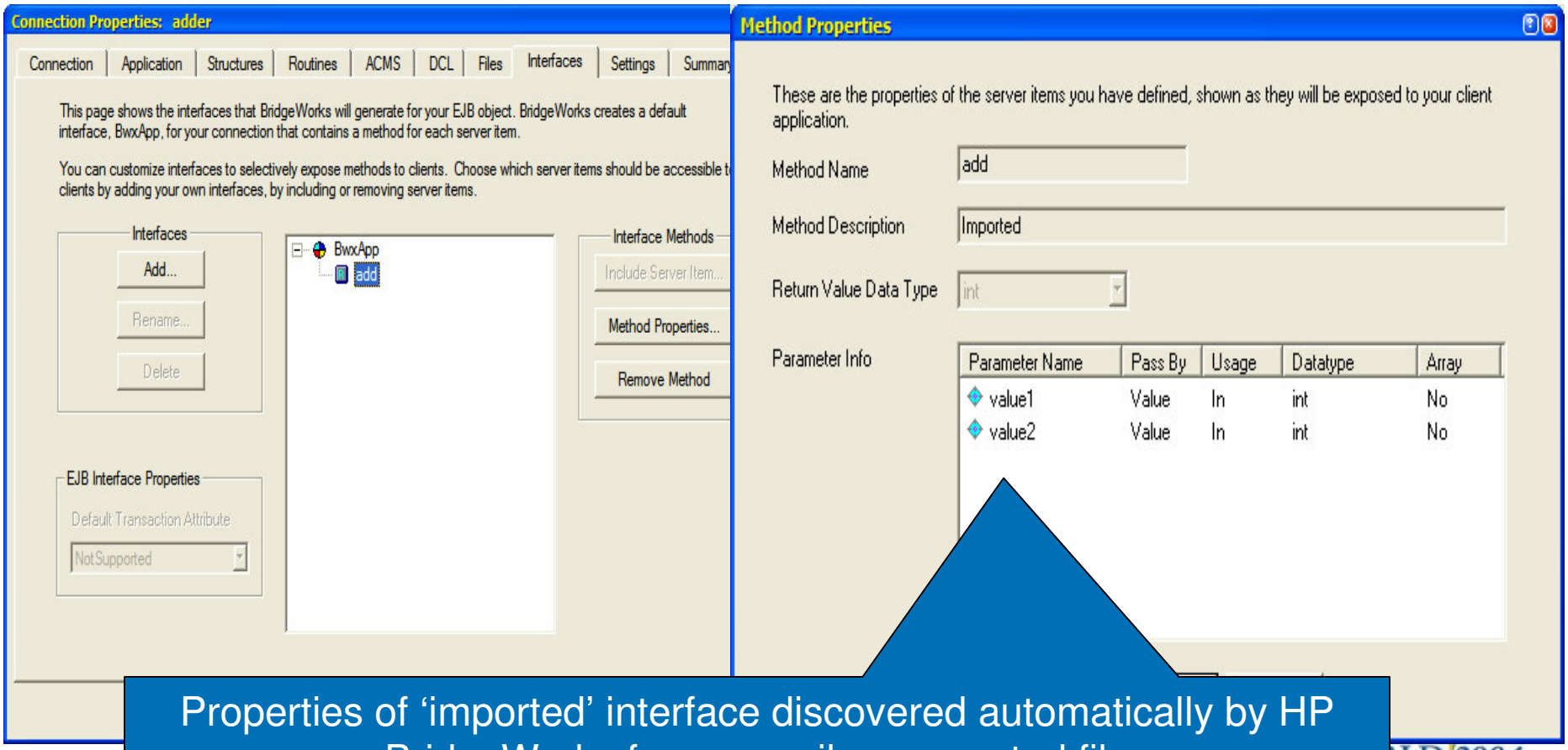
HP BridgeWorks

- Main dialog screen showing applications which have been wrapped and which can now be modified



Hp BridgeWorks

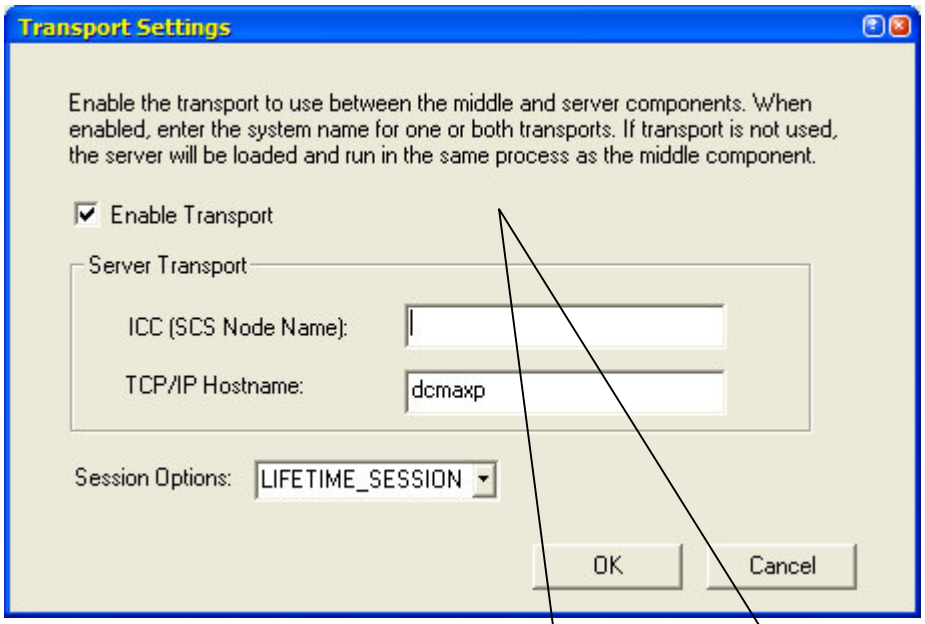
Easy Point & Click building of Components/Interfaces

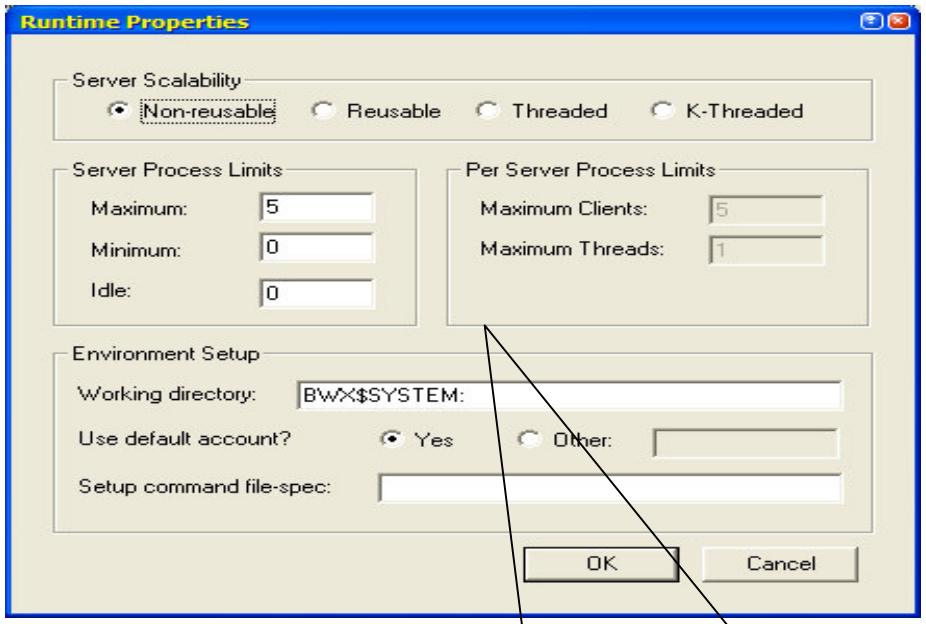


Properties of 'imported' interface discovered automatically by HP BridgeWorks from compiler-generated file

Hp BridgeWorks

Easy modification of previously generated ‘connections’





Transport to be used and node on which application resides

Runtime attributes of wrapped application

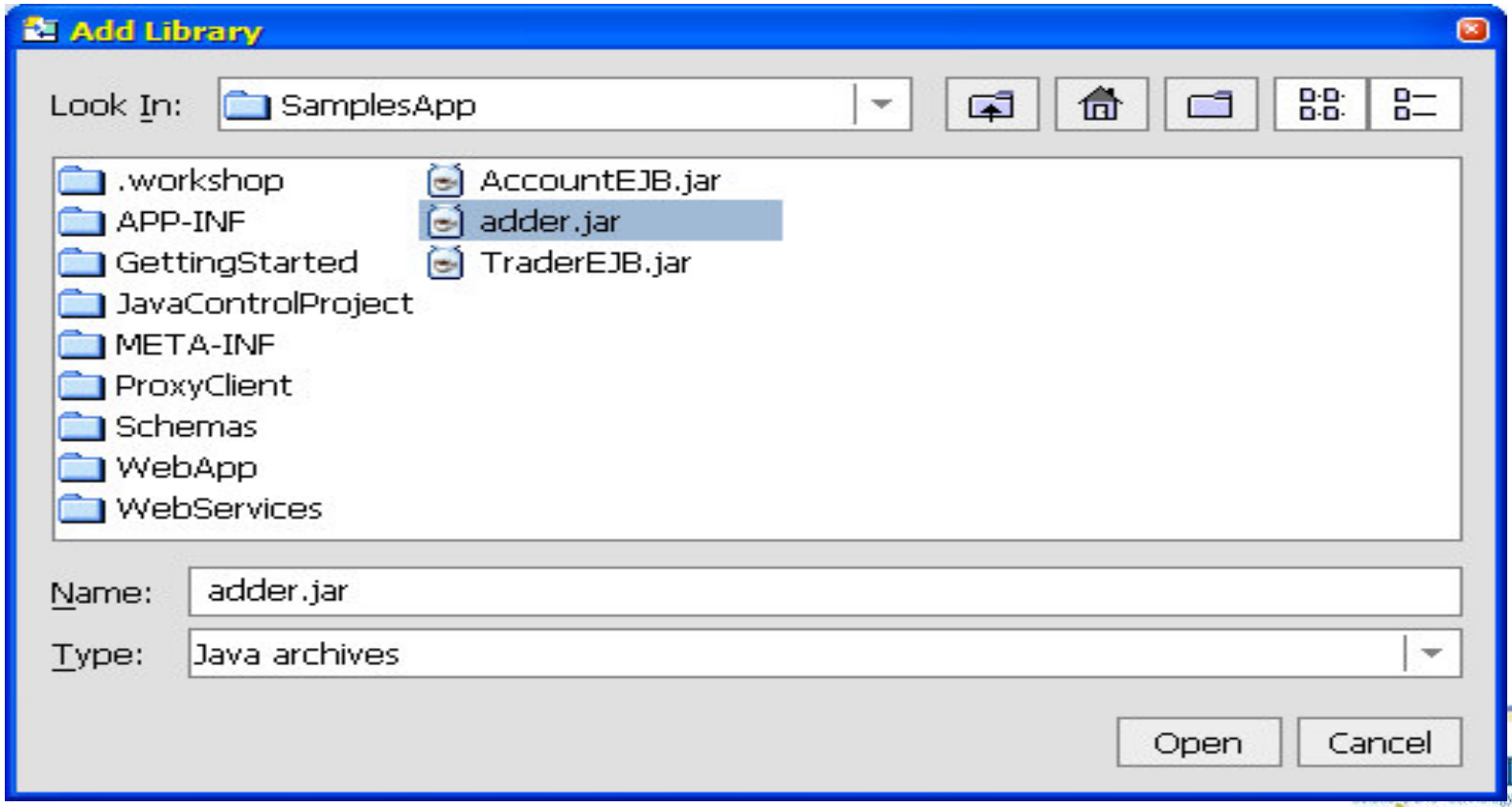
HP BridgeWorks with 3GL

```
// add.c
// Simple program to add two
// numbers and return the sum.
// The interface is generated
// automatically by HP BridgeWorks
// and invoked as a method in an EJB
// using BEA WebLogic Server.

long add( long a, long b ){
     return( a + b );
}
```

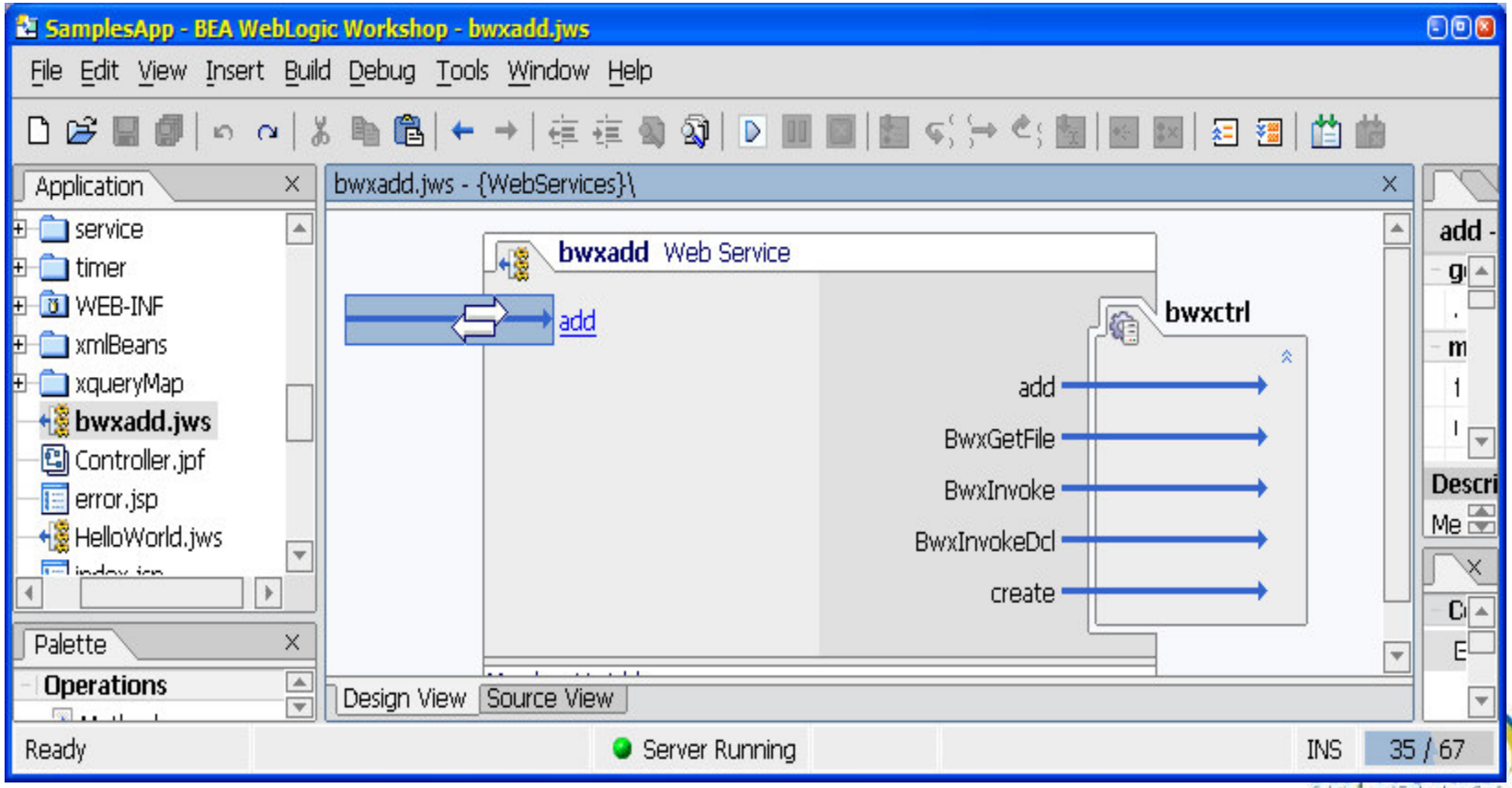
BridgeWorks and WebLogic Workshop

- Make the BridgeWorks JAR file with the generated EJB code known to Workshop



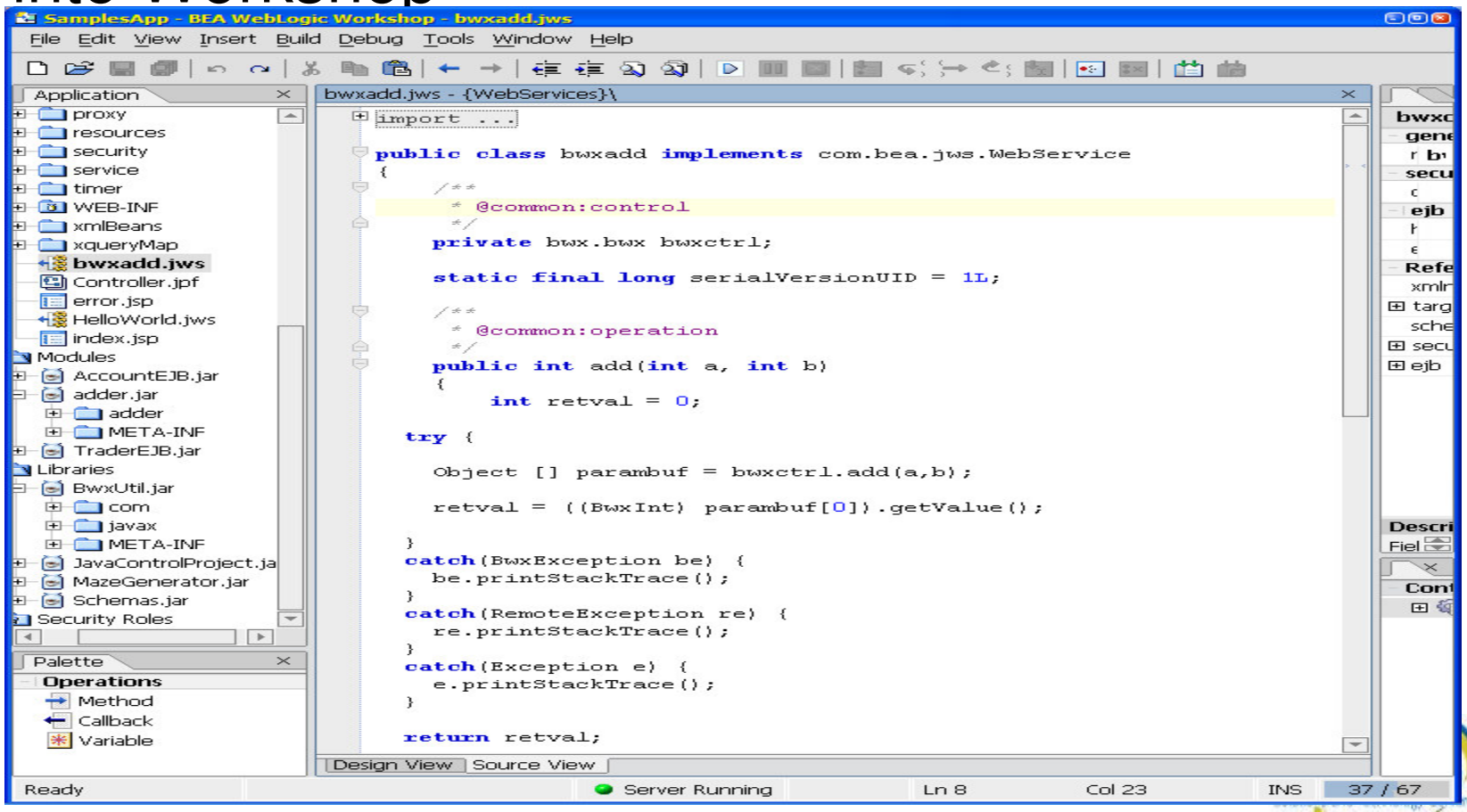
BridgeWorks and WebLogic Workshop

- Define a Web Service in Workshop using the generated EJB from BridgeWorks



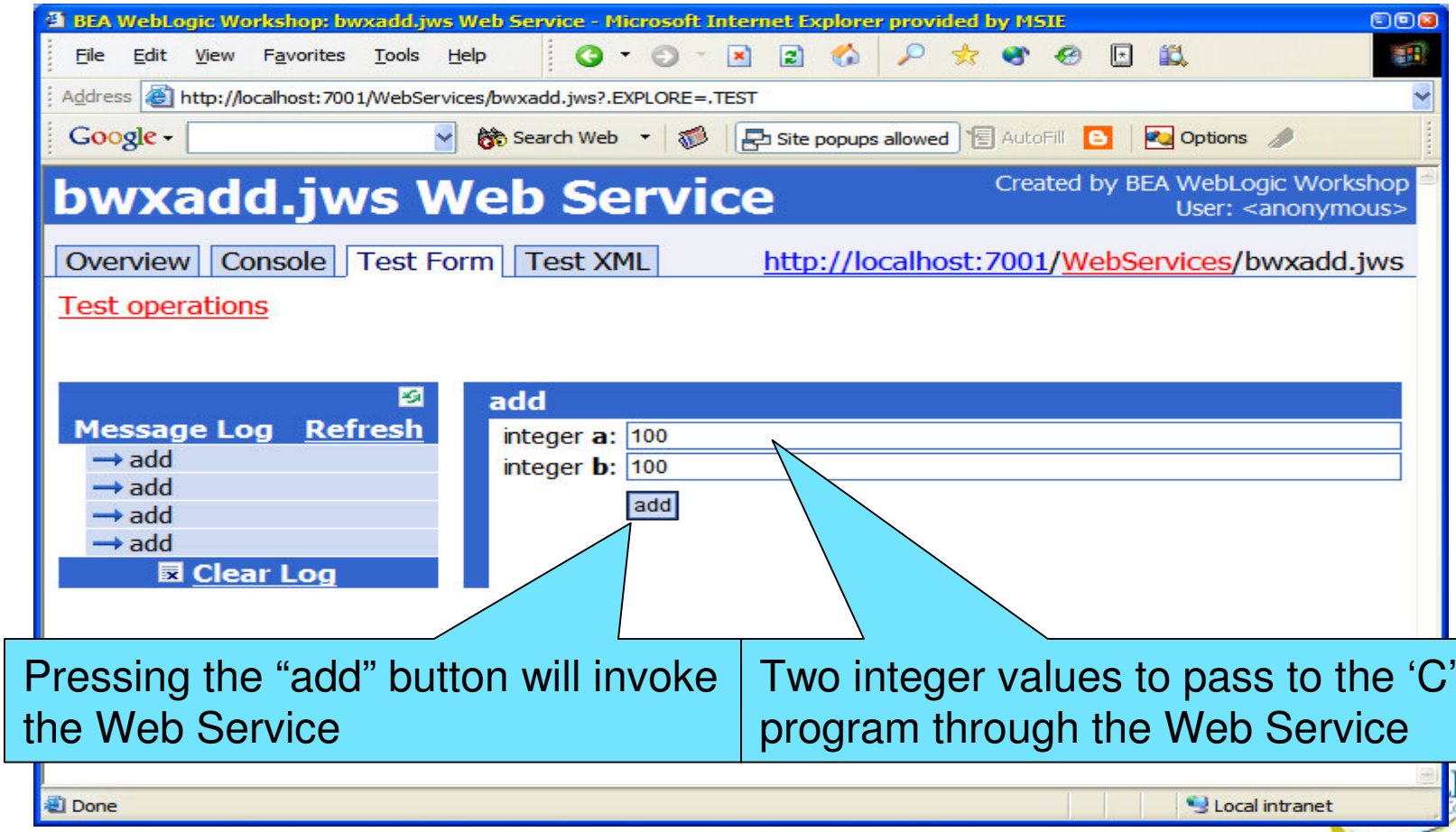
BridgeWorks and WebLogic Workshop

- Insert the appropriate code for the Web Service into Workshop



BridgeWorks and WebLogic Workshop

- Testing the Web Service in a browser. This will invoke the ‘C’ program on the remote system as if it were an Enterprise JavaBean

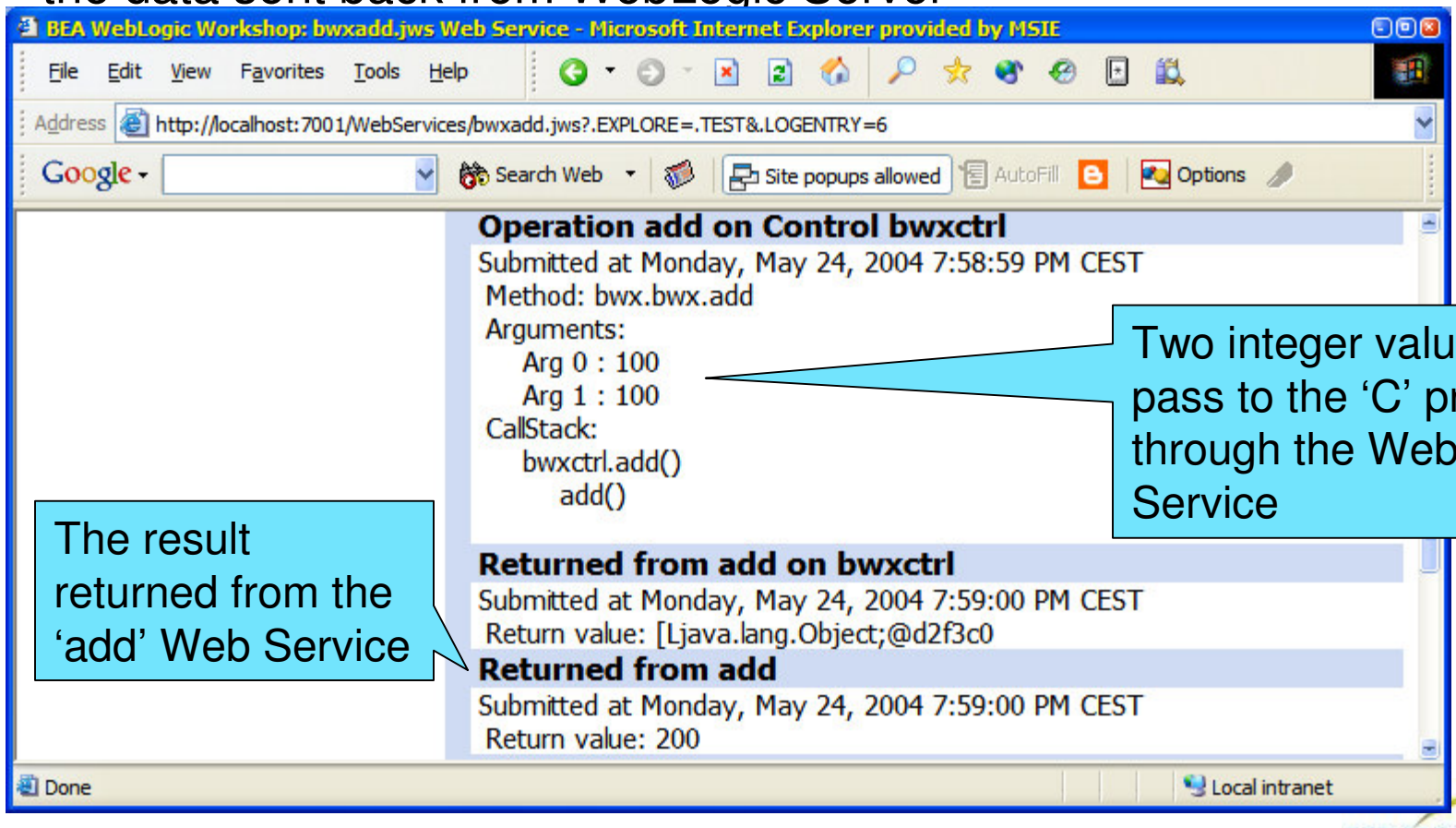


Pressing the “add” button will invoke the Web Service

Two integer values to pass to the ‘C’ program through the Web Service

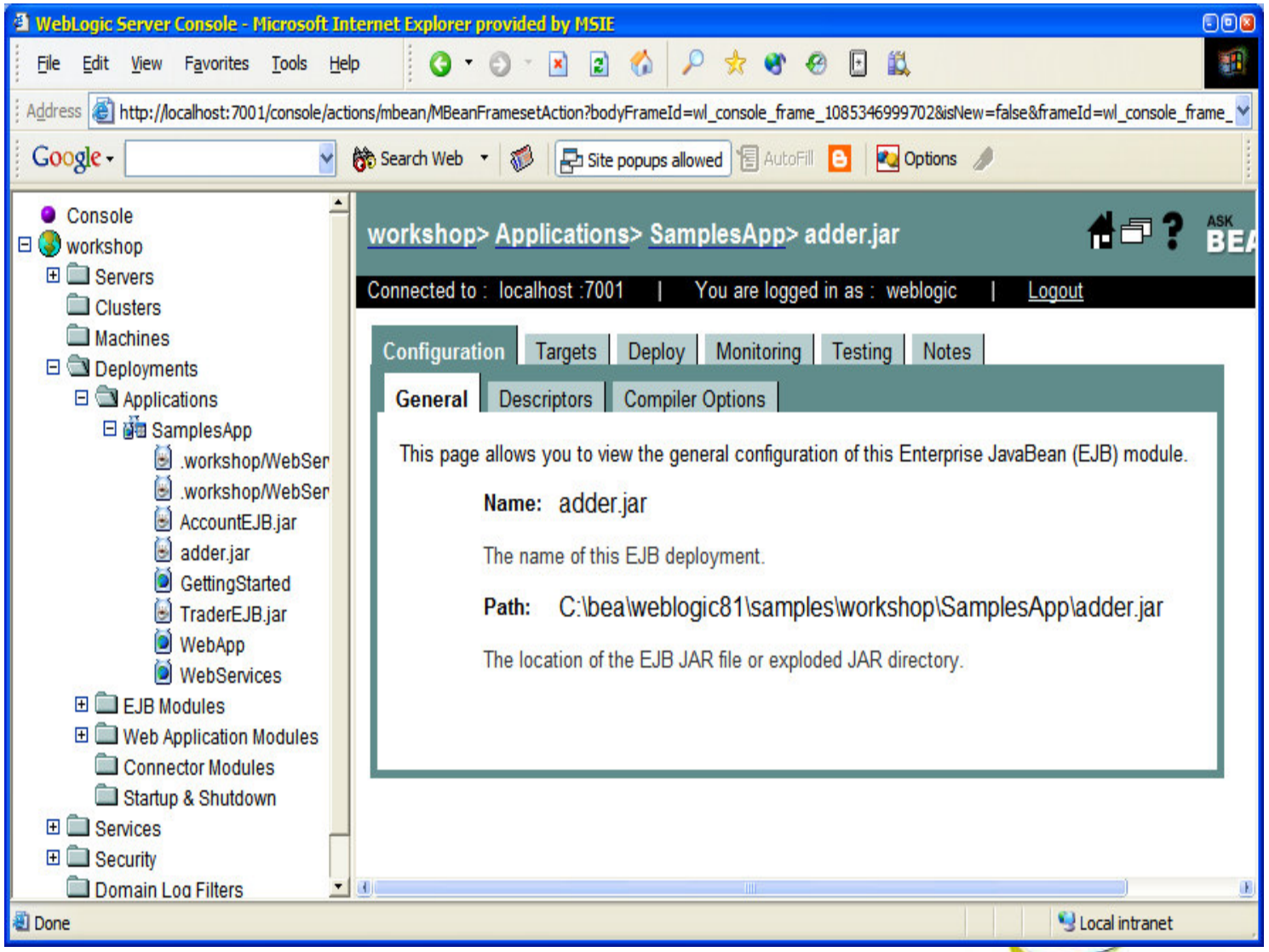
BridgeWorks and WebLogic Workshop

- Testing the Web Service in a browser. The results will be shown in the data sent back from WebLogic Server



BEA WebLogic Server

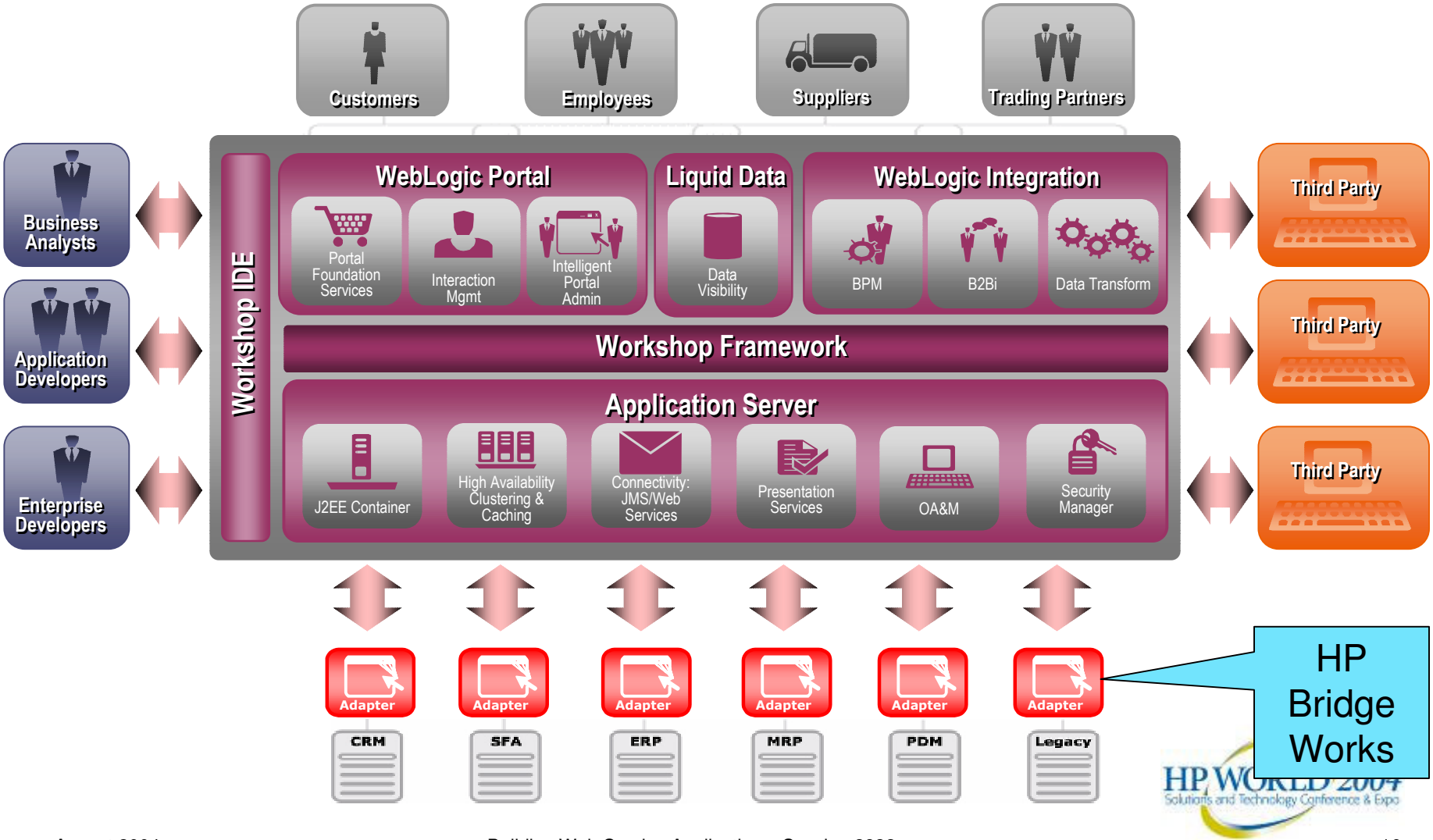
Used to invoke and control the EJB or JavaBean methods generated by BridgeWorks from ACMS and 3GL program meta-data



Web Services

- Provide the 'wire protocol' to:
  - Enable the invocation of remote methods
  - Handle marshalling of arguments
  - Allow message or RPC based connections
- Enable the discovery of services through standards-based directories
- Hide the intricacies of the methods being invoked
- Allow invocation of methods regardless of language and platform
- Are prerequisite for Service-oriented Architectures

WebLogic Platform and HP Integration Technologies



Summary

- Quickly generate all necessary components with little to no manual intervention or changes
- Generate EJB or JavaBean components from same definitions with no changes
- Integrate bespoke transactions with new applications using Web Services quickly and easily
- Reuse well-tested, reliable and long-running transaction processing functions
- Increase return on IT investment

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