

WebSphere. software

WebSphere Process Server using WebSphere SAP Adapter 6

Introduction Paper

Version 2.0

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1 Preface

1.1 Preface and scope

This document is intended for IBM personnel only, to be a technical description and design document primarily targeted for use of technical people.

1.2 Author

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1.3 Disclaimer

This document is subject to change without notification and will not comprehensively cover the issues encountered in any customer situation. It should only be used in conjunction with the product literature accompanying the J2EE products from IBM and SAP.

The information contained in this document has not been submitted to any formal IBM test and is distributed AS IS.

1.4 Scope

This document shows a simple example how to configure and test the IBM WebSphere SAP Adapter. These scenarios can then be adapted to the current real time solution.

2 System prerequisites

2.1 WebSphere Process Server 6.0.2

Based on service-oriented architecture (SOA) and as a single, simplified programming model, WebSphere Process Server, Version 6.0, is the next-generation business process server that delivers and supports all styles of integration based on open standards to automate business processes that span people, workflows, applications, systems, platforms, and architectures.

2.2 WebSphere Integration Developer 6.0.2

The WebSphere Integration Developer is a Rational Application Developer based tool for developing business integration projects. WebSphere Integration Developer is the answer to the integration challenges organization's face on a daily basis. It has been designed as a complete integration development environment for those building integrated applications. To simplify and accelerate the development of integrated applications, this environment provides a layer of abstraction that separates the visually-presented components you work with from the underlying implementation.

2.3 WebSphere Resource Adapters

IBM WebSphere Adapters help you with business integration by connecting application and information assets to the Enterprise Service Bus (ESB). They accelerate business integration projects with rapidly deployable, enterprise-ready connections based on best practices. The WebSphere Adapter portfolio provides a comprehensive set of capabilities to service-enable these assets, including packaged, custom, and legacy applications, technology protocols, and databases

2.4 SAP/R3

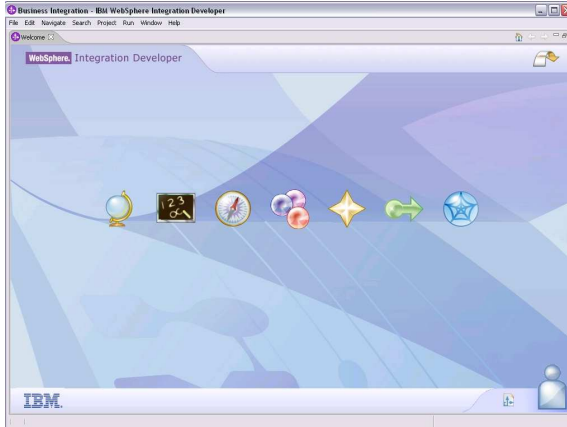
You must be able to access a SAP/R3 system, moreover be sure that you have the appropriated rights to access the BAPI/iDoc you want to call.

2.5 SAP JCo 2.1.8

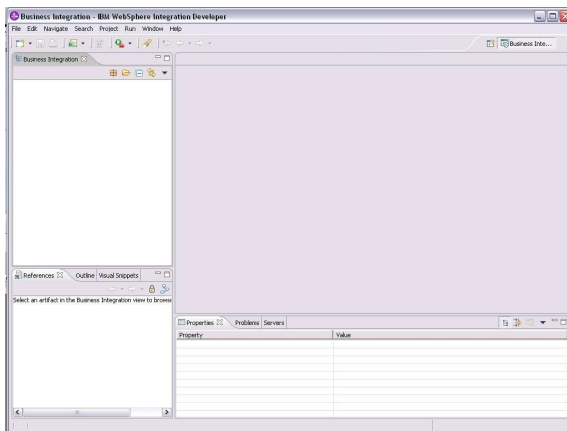
The SAP Java Connector is provided by the SAP to connect from a JAVA environment to SAP.

3 Create the adapter project

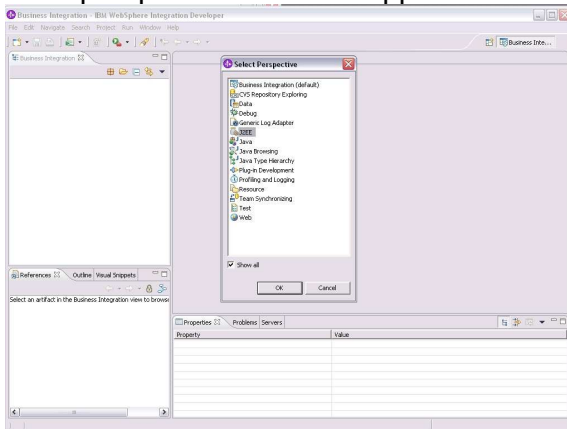
After you opened a new Workspace close the welcome screen to enter the WebSphere Integration Developer design perspective.



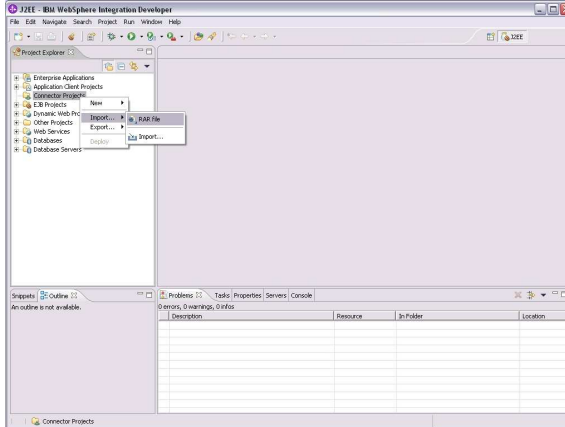
The new Workspace will open in the “Business Integration” perspective. You will need this perspective later, but first switch to the J2EE perspective.



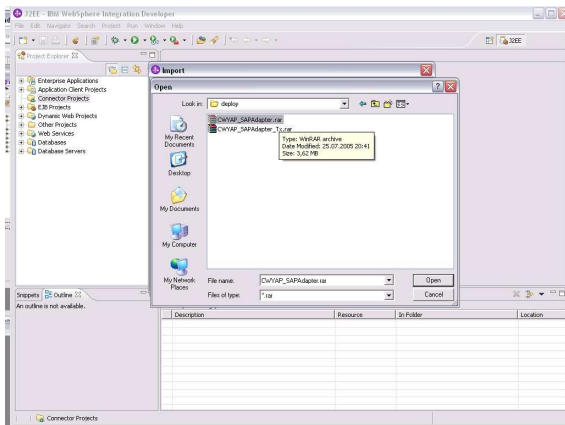
If the perspective does not appear in the menu, just select the “show all” box.



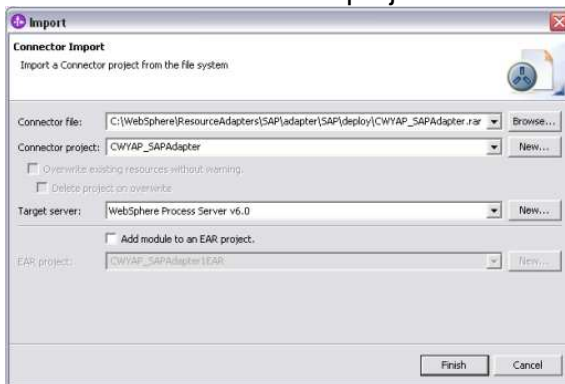
Then you right click on the connector Projects folder and import a rar file.



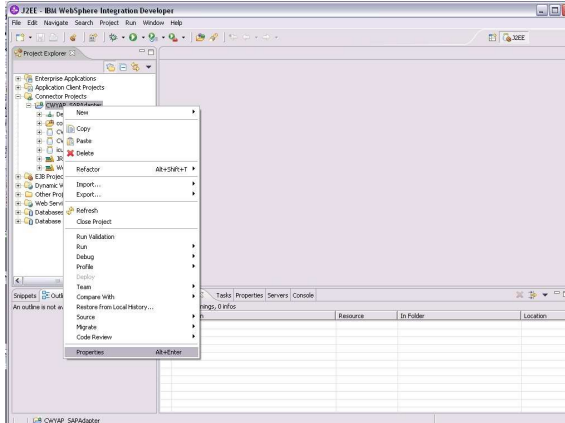
The rar file could be found in your Resource Adapter install folder.



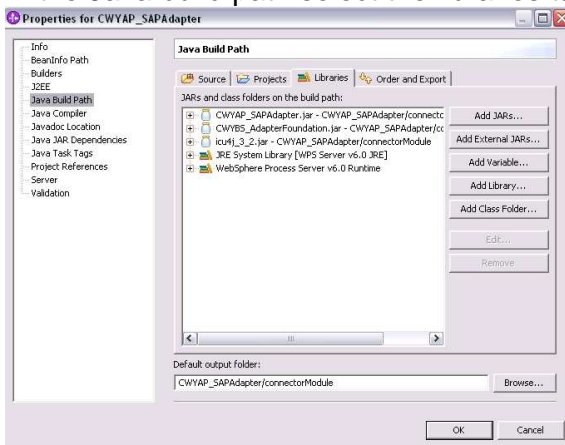
You do not need an EAR project because the adapter is used directly.



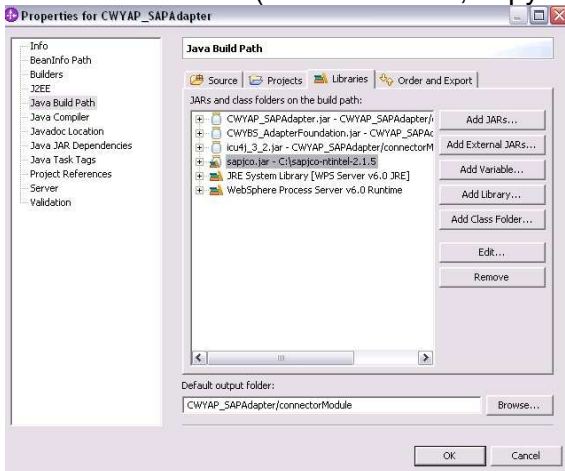
After that you need to configure additional properties, so open the properties of the created project.



In the Java build path select the libraries tab and add an external jar file.



Add the sapjco.jar file which could be found in your sapjco install folder. Or in the lib path of the WebSphere Process Server you will use, because it is needed there also (if it is not there, copy it to that path).



So the SAP connector is installed in the WebSphere Integration Developer environment and can be used.

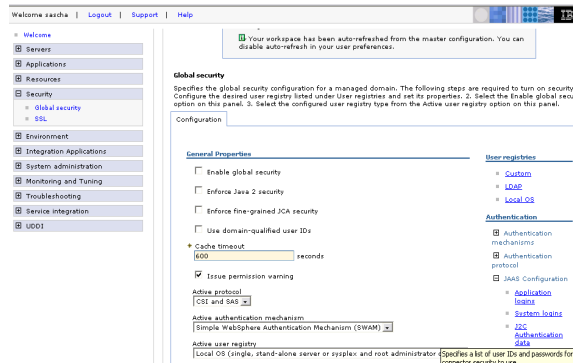
4 Configure the Process Server

4.1 JCo placement

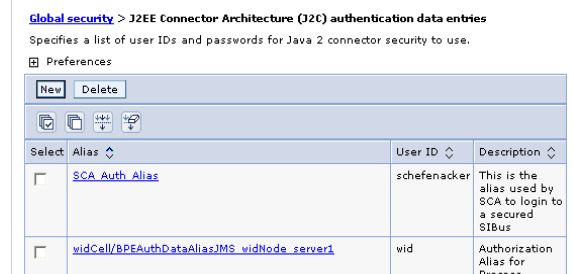
Just copy the sapjco.jar into the “lib” directory of the WebSphere Process Server.

4.2 J2C authentication data

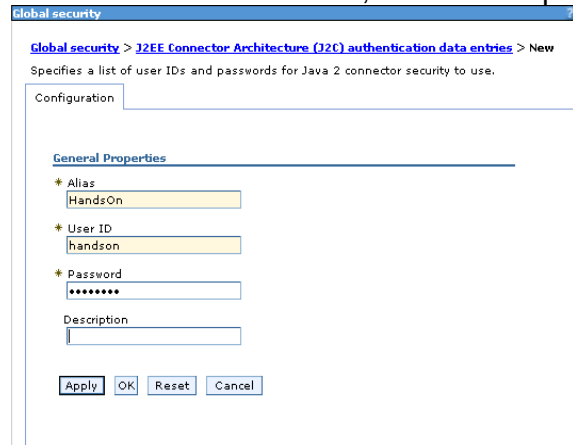
In the “Global security” open the “JAAS Configuration” section and enter the “J2C Authentication data”



There create a new entry.



Enter the data for the alias, user ID and password



Save the master configuration and check if the new entry is in the list.

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<input type="checkbox"/>	widNode/HandsOn	handson	

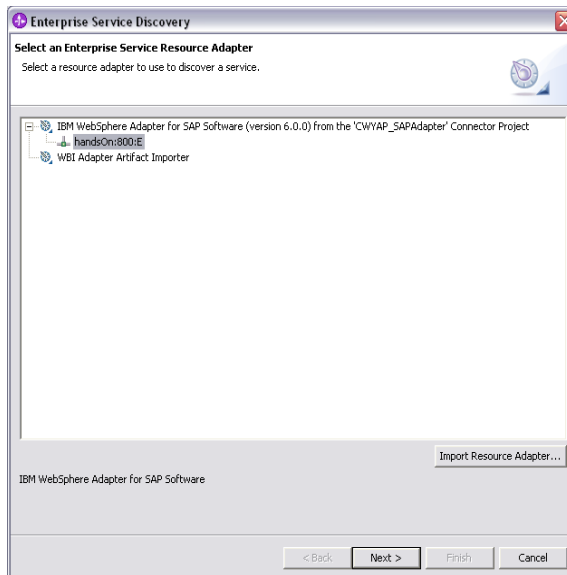
5 BAPI

5.1 Outbound

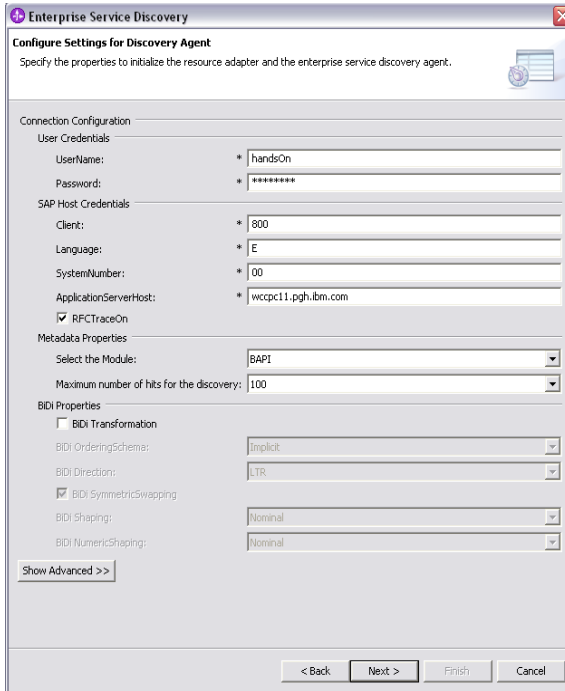
The BAPI Outbound SAP connection is used if the Process request information from the SAP system using the BAPI interface.

5.1.1 Step by step

Create a new Enterprise Service Discovery Project and select the SAP Adapter project that was created in the beginning.



Fill in the fields for User, Password, Client, System Number, Host and select BAPI as Module.



Enterprise Service Discovery
Configure Settings for Discovery Agent
 Specify the properties to initialize the resource adapter and the enterprise service discovery agent.

Connection Configuration

User Credentials

UserName: * handsOn
 Password: * *****

SAP Host Credentials

Client: * 000
 Language: * E
 SystemNumber: * 00
 ApplicationServerHost: * wccpc11.pgh.ibm.com

RFCTraceOn

Metadata Properties

Select the Module: BAPI
 Maximum number of hits for the discovery: 100

BIDI Properties


BIDI Transformation

BIDI OrderingScheme: implicit
 BIDI Direction: LTR
 BIDI SymmetricSwapping
 BIDI Shaping: Nominal
 BIDI NumericShaping: Nominal

Show Advanced >>

< Back Next > Finish Cancel

Run the Query. If you receive an error the connection to the SAP system cannot be established. So check if there is a firewall between you and the server or if the logon credentials are correct.



Enterprise Service Discovery
Find and Discover Enterprise Services
 Use "Edit Query" to create a query and press "Run Query" to discover matching objects on the enterprise system.

Query: Edit Query...

Run Query

Objects discovered by query:

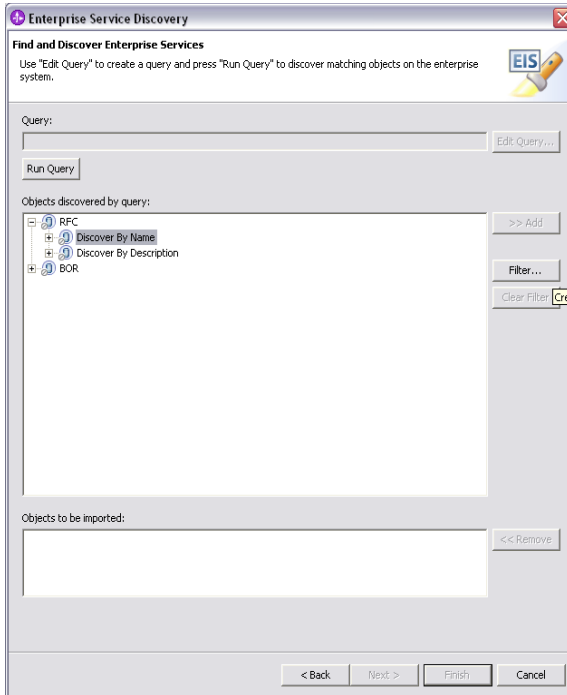
>> Add
 Filter...
 Clear Filter

Objects to be imported:

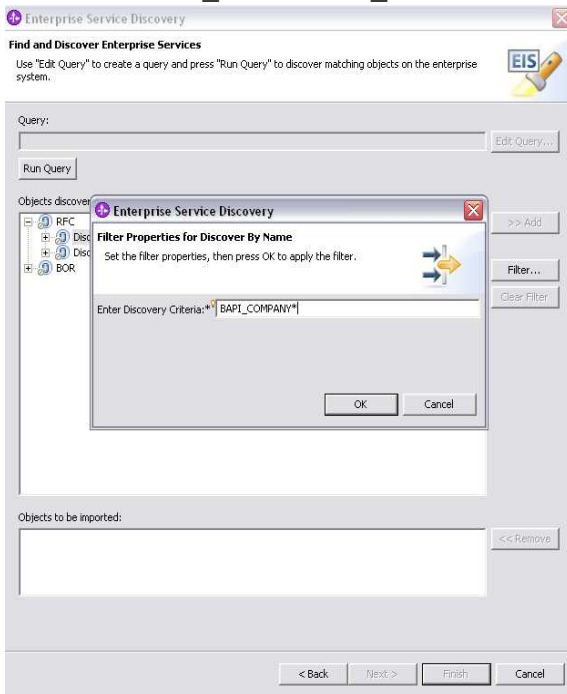
<< Remove

< Back Next > Finish Cancel

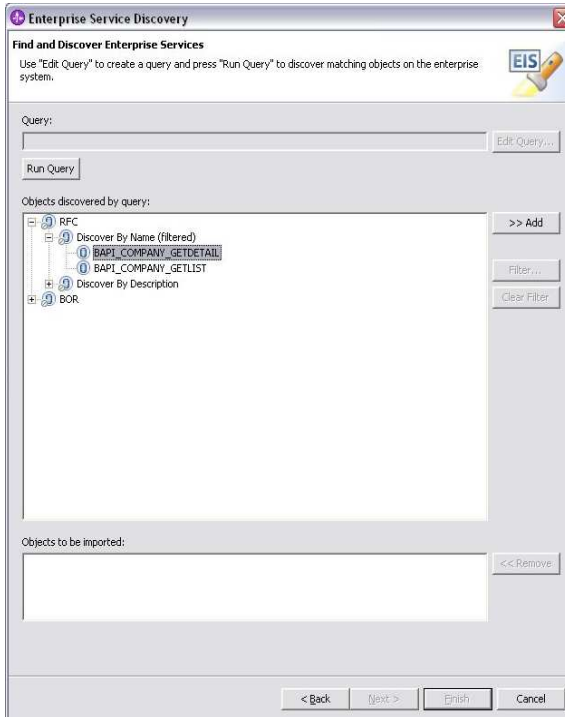
Before opening the "discover by name" tree click on the "filter" button.



Filter for "BAPI_COMPANY_GET**"



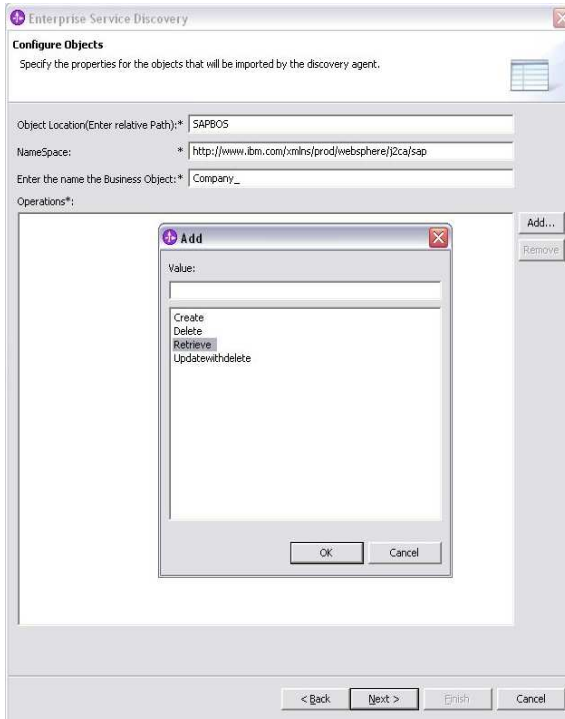
Then select the BAPI to retrieve Company Details in this example.



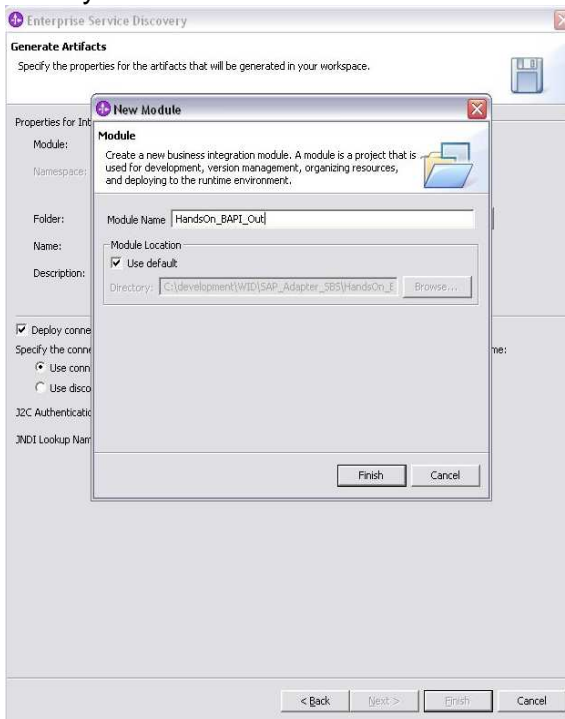
Use the Field Names to generate the attributes.



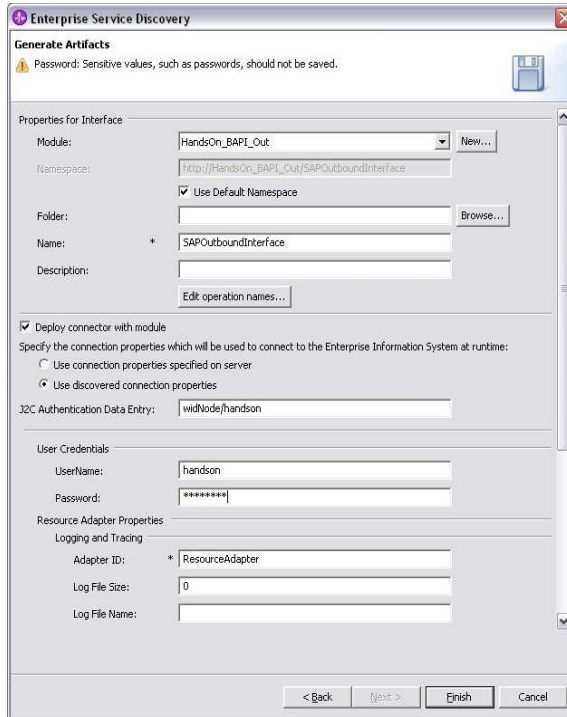
Enter the Object Locations (your choice) and the name of the business object (your choice)
Also add the retrieve operation.



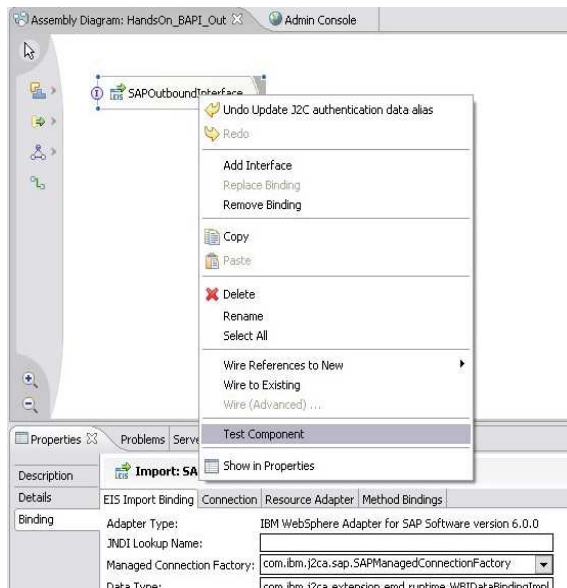
Then you have to create a new Module for the Project.



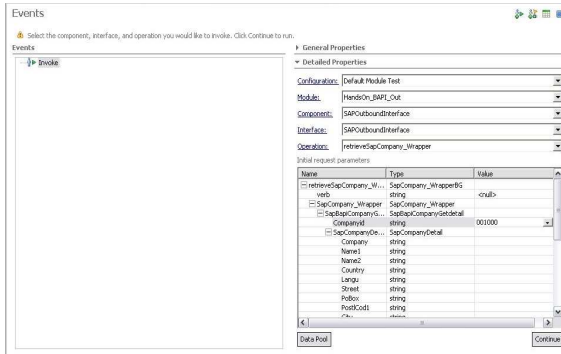
Enter the parameter for the J2C entry. The username + password are not needed and it is not suggested to enter it here. Because the password will be accessible in readable form from the editor – see the “hints” part of this document.



After that make sure the server is started and click in the assembly editor on the import. Select “test component”
 This will publish the project to the server and start the test client.



In the testclient fill “001000” as company ID to have a valid test value in an IDES System.



Just click the “Continue” button to run the test and you will see the result with values in the table.

