



| IBM China Development Lab

WebSphere Adapter 介绍

李峰

WebSphere Adapter 二线技术支持

什么是Adapter

- Business Object
- Object Discovery Agent (ODA) / Enterprise Metadata Discovery (EMD) / External Service
- Broker
- Inbound
- Outbound

Adapter 的历史

- WebSphere Business Integration Adapter
(WBI Adapter, Legacy Adapter)

*WBI Adapter*是独立的Java程序，不依赖于J2EE中间件。
*Broker*可以是ICS (Interchange Server) , MQ, WAS。

- WebSphere Adapter (JCA Adapter)

JCA Adapter是基于J2EE中的JCA规范开发的。

常见的Broker是WPS (WebSphere Process Server) /WESB (WebSphere Enterprise Service Bus) , 部分JCA Adapter也可以用WMB、WAS、WTE (WebSphere Transformation Extender) 作为Broker。

WebSphere Adapter 7 的种类

- Technology

IBM WebSphere Adapter For Flat Files V7.0

IBM WebSphere Adapter for FTP V7.0

IBM WebSphere Adapter for JDBC™ V7.0

IBM WebSphere Adapter for E-Mail V7.0

IBM WebSphere Adapter for iSeries V7.0

IBM WebSphere Adapter for Lotus Domino V7.0

- Application

IBM WebSphere Adapter for SAP Applications V7.0

IBM WebSphere Adapter for PeopleSoft Enterprise V7.0

IBM WebSphere Adapter for Siebel Business Applications V7.0

IBM WebSphere Adapter for JD Edwards EnterpriseOne V7.0

IBM WebSphere Adapter for Oracle E-Business Suite V7.0

Trouble Shooting

- Trace级别: com.ibm.j2ca.*=all
- 如何查看版本
 - 在Trace中
 - Ra.xml

技术团队

- 开发团队：中国、印度
- 测试团队：中国
- 技术支持团队：美国、中国、德国

相关资料

- WebSphere Adapter Sample

<http://publib.boulder.ibm.com/bpcsample/index.html>

- MustGather for WebSphere Adapter

<http://www-01.ibm.com/support/docview.wss?rs=695&uid=swg21240322>

- Compatibility Matrix for WebSphere Adapter

http://www-01.ibm.com/support/docview.wss?rs=0&q1=compatibility%20matrix:&q2=compatibility%20matrix%20adapters&q3=compatibility%20matrix:%20Websphere%20Business%20Integration%20Adapters%20and%20WebSphere%20Adapters&uid=swg21252626&loc=en_US&cs=utf-8&cc=us&lang=en

- WebSphere 产品的生命周期

<http://www-01.ibm.com/software/websphere/support/lifecycle/>

场景演示

某公司的SAP系统，需要实时的将更新的数据传送到另外一台机器的文件系统中，从而提高部门之间的协作效率，加快公司应对紧急情况的反应速度。

所需要用得到部件

- WebSphere Adapter for SAP, Inbound
- WebSphere Adapter for Flat File, Outbound
- Java Component

File Edit Navigate Search Project Window Help

New

Alt+Shift+N

Open File...

Close

Ctrl+W

Close All

Ctrl+Shift+W

Save

Ctrl+S

Save As...

Save All

Ctrl+Shift+S

Revert

Move...

Rename...

F2

Refresh

F5

Print...

Ctrl+P

Switch Workspace



Restart

Import...

Export...

Properties

Alt+Enter

1 IBM WebSphere Integration Developer 7.0

Exit



File

Edit

Navigate

Search

Project

Window

Help

Integration Solution

Module

Mediation Module

Library

Component Test Project

Project...

Artifact Evolution

Business Calendar

Business Object

Business Object from External Data

Business Process

Business Process From Lotus Forms

Business Service

Business State Machine

Business Vocabulary

Component Test Case

Component Test Suite

Configure Binding Resource

Custom Visual Snippet

Data Map

Data Pool

Decision Table

Emulator

Event Definition

External Service

Human Task

Interface

Problems

Log

Corporation

**Integration Solutions**[New integration solution](#)**Projects**[New business integration project](#)**New External Service****Select the Service Type or Registry**

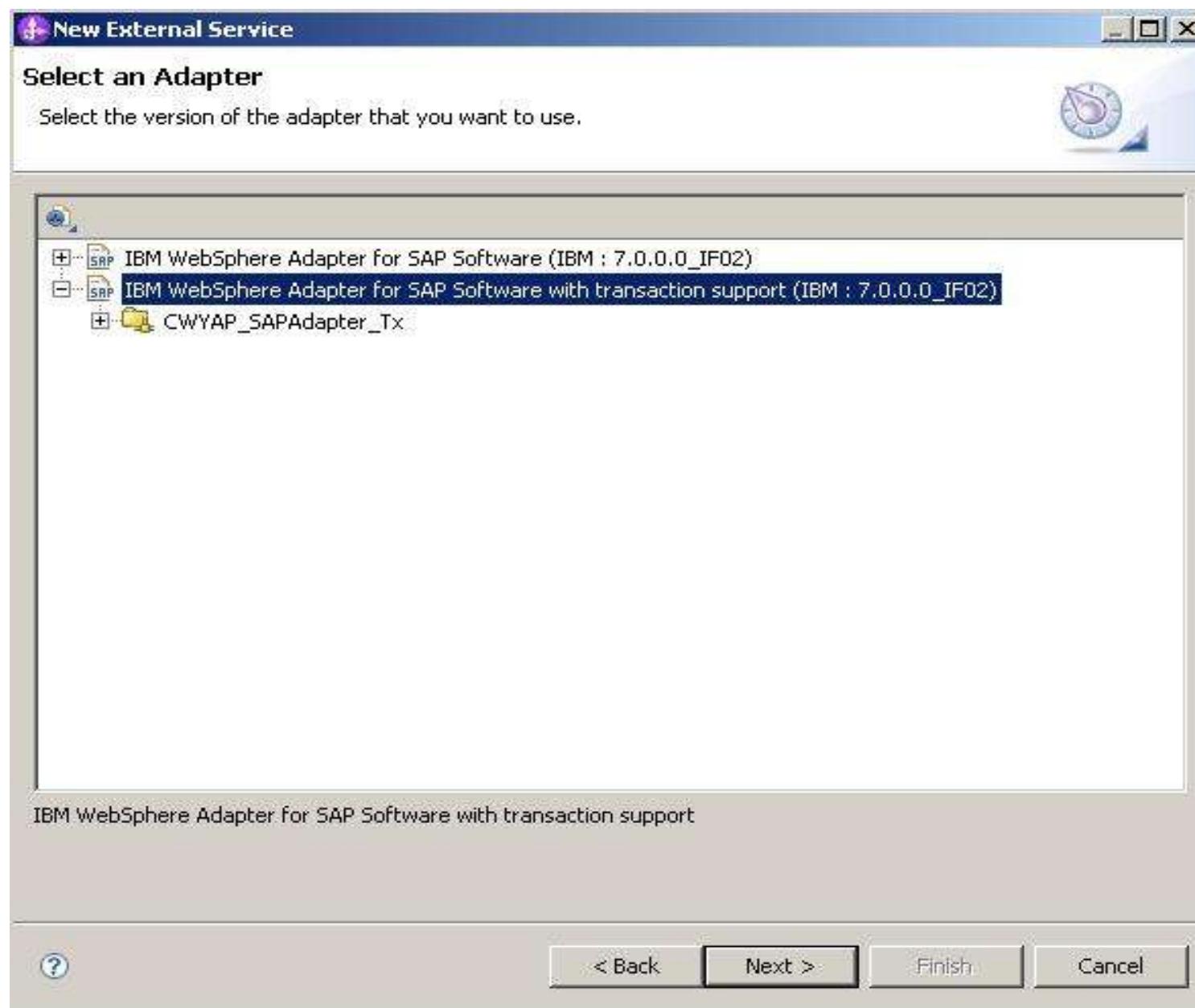
Select the type of service to create or registry to browse.

Filter: type filter text**Available types:**

- Adapters
 - + CICS
 - + E-mail
 - + Flat File
 - + FTP
 - + IMS
 - + iSeries
 - + JD Edwards
 - + JDBC
 - + Lotus Domino
 - + Oracle E-Business Suite
 - + PeopleSoft
 - SAP**
 - + Siebel
 - + Unlisted Adapter
- + Java
- + Messaging
- + Registries
- + SCA
- + Web

Description:

Creates a service to access the SAP server using WebSphere® Adapter for SAP Software. You can create service-oriented integrated processes, which can interact and exchange information with the SAP Server, without special coding. During outbound processing, services running on WebSphere Process Server or WebSphere Enterprise Service Bus use the adapter to perform operations on the SAP EIS. During inbound processing, these services use the adapter to receive events from the SAP EIS.



Business Integration - IBM WebSphere Integration Developer 7.0 - C:\PMRArchive\openmic\workspace7

Edit Navigate Search Project Window Help



Integration Solutions

Integration solution

Projects

CWWYAP_SAPAdapter

New External Service

Locate the Required Files and Libraries

Connector projects require system-specific libraries and JAR files.

When deploying the application to a stand-alone server, these files must be configured on the server. [More ...](#)

Specify the location of the files required to access the SAP server. You might first need to contact your SAP system administrator to download these files from the SAP Web site.

SAP sapjco3.jar file: * System library file (sapjco3.dll or libsapjco3.so):*

Business Integration - IBM WebSphere Integration Developer 7.0 - C:\PMRArchive\openmic\workspace?

File Edit Navigate Search Project Window Help



New External Service

Select the Processing Direction

Select the direction of adapter processing at run time.

 Inbound

Inbound processing passes data from the adapter to your service export.

 Outbound

Outbound processing passes data from your service import to the adapter.



File Search Project Window Help

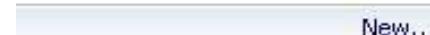


Integration



solutions

1 solution



SAPAdapter

New External Service

Specify the Discovery Properties

Connection properties

SAP system connection information

Host name: * 9.30. 04.21

System number: 00

Client: 100

Language code: EN (English)

Code page: 1100

The user name and password will not be encrypted and will be stored as plain text.

User name: * . FENGBJ

Password: * *****

SAP interface name: ALE

 Change the logging properties for the wizard

< Back

Next >

Finish

Cancel

New External Service

Find Objects in the Enterprise System

Expand nodes to view and select discovered objects. Use filtering, if necessary, to limit number of objects displayed.



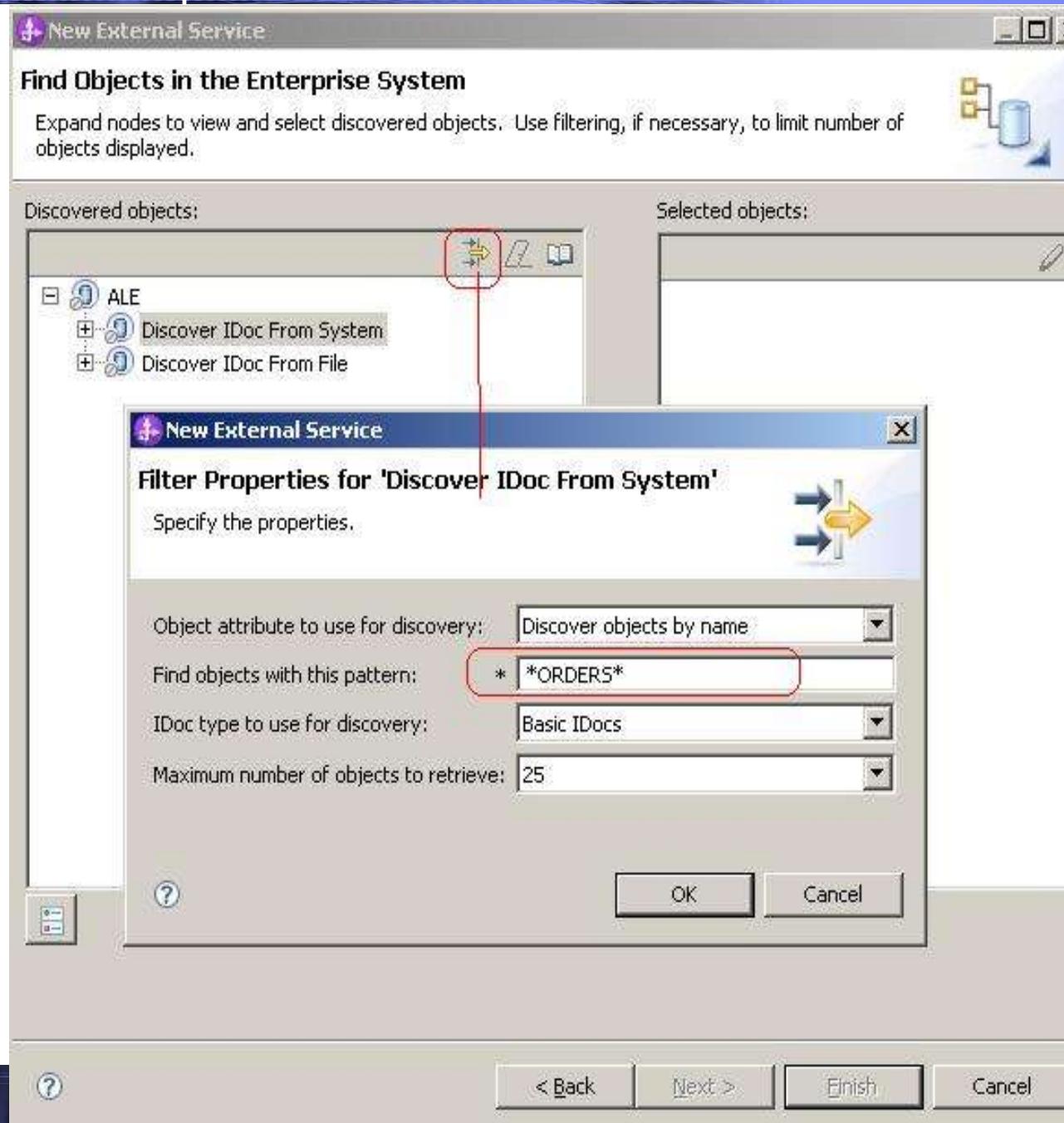
Discovered objects:

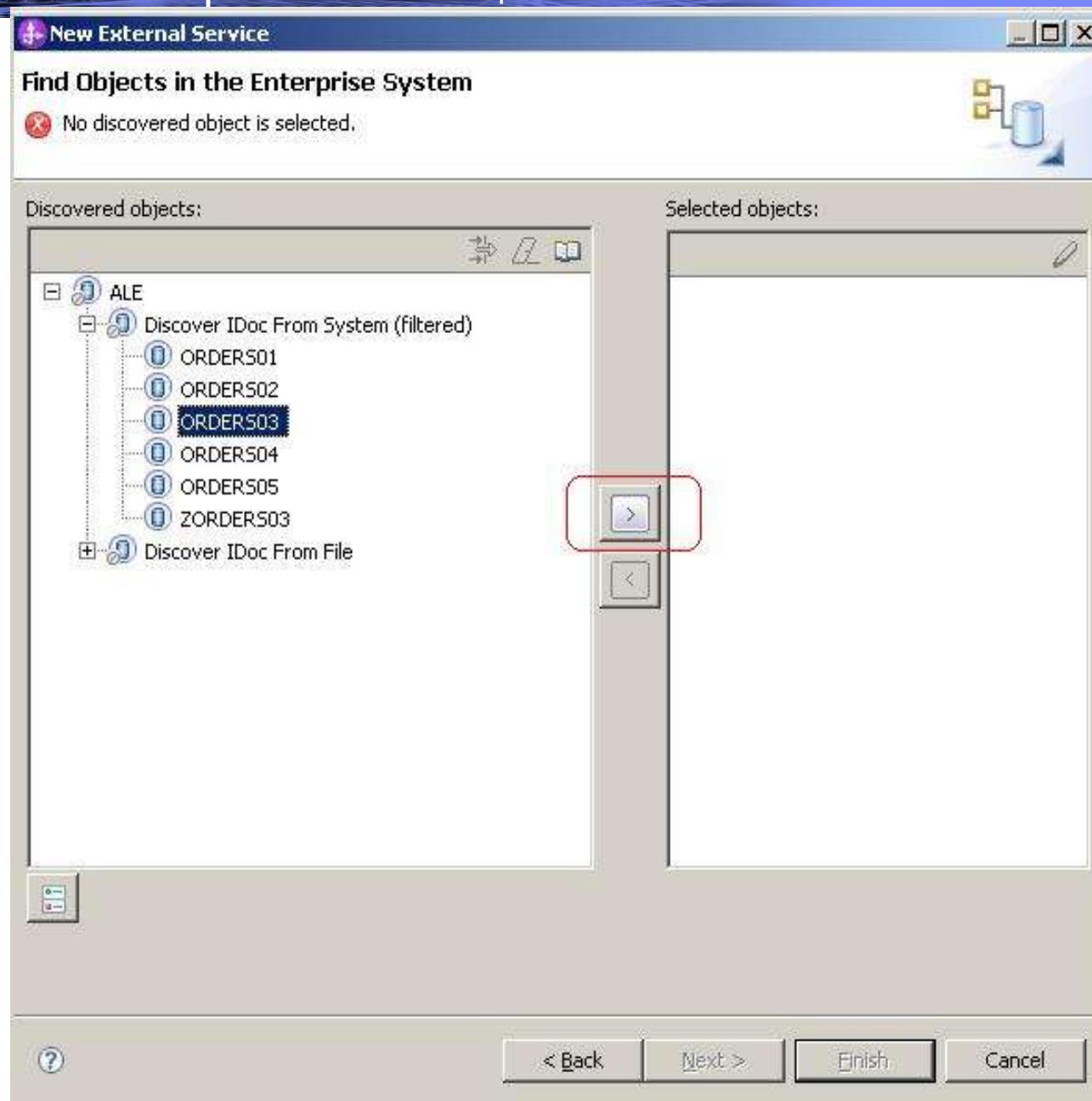
A screenshot of a software interface showing a tree view of discovered objects under the 'ALE' category. The visible items are 'Discover IDoc From System' and 'Discover IDoc From File'. The 'Discover IDoc From System' item is currently selected, indicated by a dark blue background. The interface includes standard Windows-style icons for copy, paste, and search at the top, and navigation buttons (back, forward) on the right side.

- ALE
 - + Discover IDoc From System
 - + Discover IDoc From File

Selected objects:

A screenshot of the 'Selected objects' pane, which is currently empty. It features a header bar with a magnifying glass icon and a toolbar below it. The main area is a large, empty rectangular box.





New External Service

Find Objects in the Enterprise System

Expand nodes to view and select discovered objects. Use filtering, if necessary, to limit number of objects displayed.

Discovered objects:

- ALE
 - Discover IDoc From System (filtered)
 - ORDER501
 - ORDER502
 - ORDER503
 - ORDER504
 - ORDER505
 - ZORDERS03
 - Discover IDoc From File

Selected objects:

 - ORDER503

Buttons at the bottom:

 - < Back
 - Next >
 - Finish
 - Cancel

New External Service

Specify Composite Properties

Specify properties that apply to all selected objects.

Configure IDoc inbound service operations

IDocs selected

ORDER503

Properties:

For the IDoc selected, select existing service operations or type and enter new ones in the field below

Service operation:*

- Create
- Update
- Delete

Ensure IDocs correspond to business objects during processing from SAP
IDoc Identifiers for the service operation:""

Business object namespace:*

Specify the relative folder for the generated business object:

Folder:

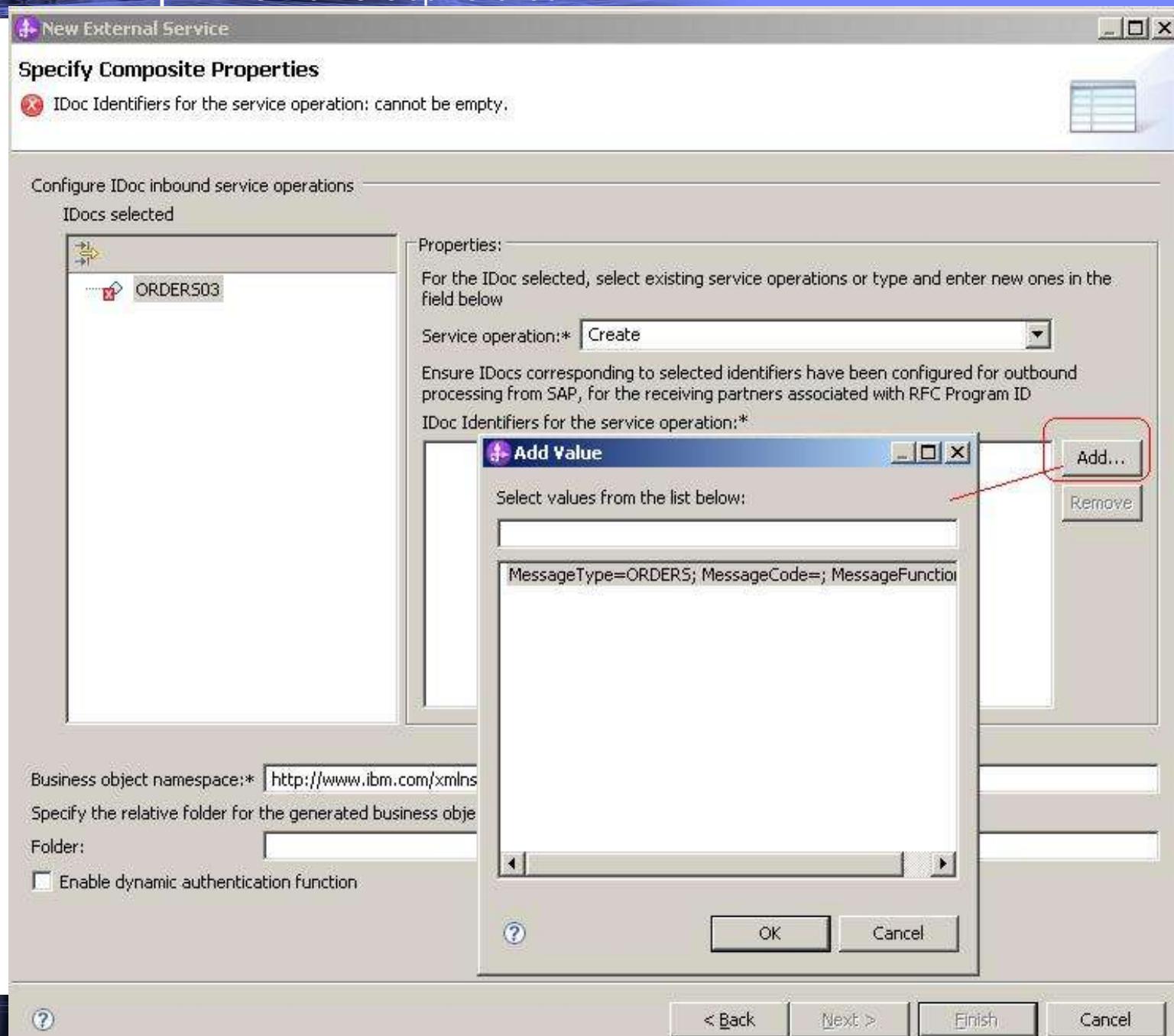
 Enable dynamic authentication function

< Back

Next >

Finish

Cancel



New External Service

Specify Composite Properties

Specify properties that apply to all selected objects.

Configure IDoc inbound service operations

IDocs selected

Properties:

For the IDoc selected, select existing service operations or type and enter new ones in the field below

Service operation:* Create

Ensure IDocs corresponding to selected identifiers have been configured for outbound processing from SAP, for the receiving partners associated with RFC Program ID

IDoc Identifiers for the service operation:*

MessageType=ORDERS; MessageCode=; MessageFunction=;

Add... Remove

Business object namespace:*

http://www.ibm.com/xmlns/prod/websphere/j2ca/sap

Specify the relative folder for the generated business object:

Folder:

Enable dynamic authentication function

< Back **Next >** Finish Cancel

Service Operations

To modify the names, or add a description to the operations to be generated in the interface file, click Edit Operations.

[Edit Operations...](#)

Deployment Properties

How do you want to specify the security credentials?

Using an existing JAAS alias (recommended)

A Java Authentication and Authorization Services (JAAS) alias is the preferred method.

J2C authentication data entry:

Using security properties from the activation specification

The properties will be stored as plain text; no encryption is used.

User name: *

Password: *

Other

Use if no security is required or will be handled by the EIS system, or the RAR will be deployed on the server and security will be specified by the properties in the JNDI lookup name.

Deploy connector project:

Specify the settings used to connect to SAP Software at run time:

Connection settings:

Connection Properties

SAP system connection information

Use load balancing

To use load balancing, specify the load balancing properties in the Additional connection configuration panel under the Advanced tab.

Host name: *

RFC program ID: *

Gateway host:

Gateway service:

Client:

Language code:

Code page:

System number:

The user name and password will not be encrypted and will be stored as plain text.

Event persistence configuration

Select this option to retain the events in-memory. This ensures a once-only delivery of the inbound events. If this option is not selected, performance increases; but there is a risk of losing the events in transit if an unexpected shutdown occurs.

Ensure assured-once event delivery (may reduce performance)

Auto create event table

New External Service

Specify the Location Properties

Module: The resource SAPInboundInterface.export already exists. It will be overwritten.

**Properties for Service**

Module:

New...

Namespace:

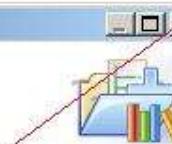
 http://MYTEST/SAPInboundInterface Use the default namespace

Folder:

Browse...

New Business Integration Project**Select a Business Integration Project Type**

Select the type of business integration project that you want to create.

 **Module**

Use a module to integrate business applications and services. A module can contain any type of component and can be deployed on WebSphere Process Server.

[More...](#) **Mediation module**

Use a mediation module to integrate and connect services. A mediation module can contain mediation flows and can be deployed on WebSphere ESB or WebSphere Process Server.

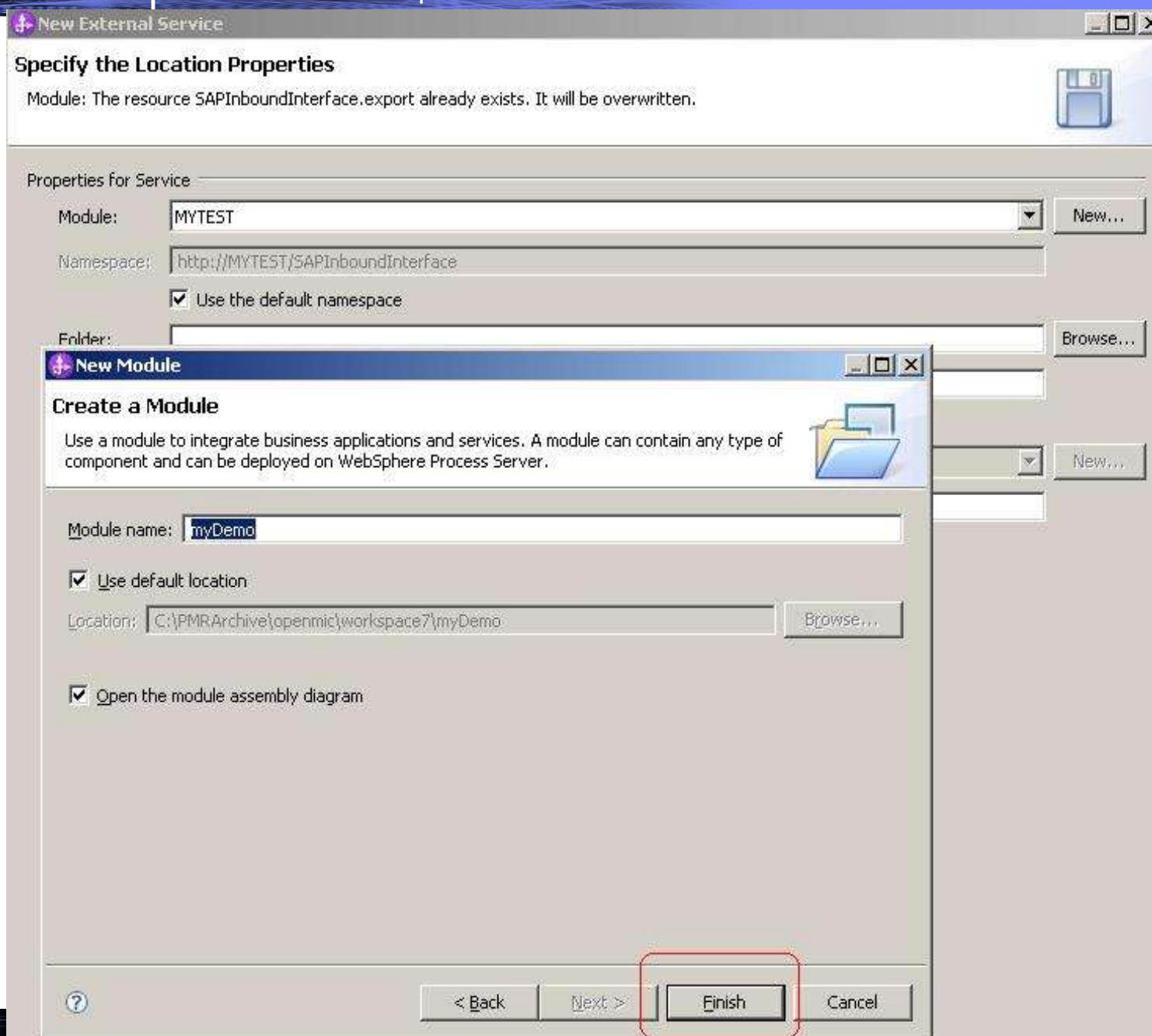
[More...](#)

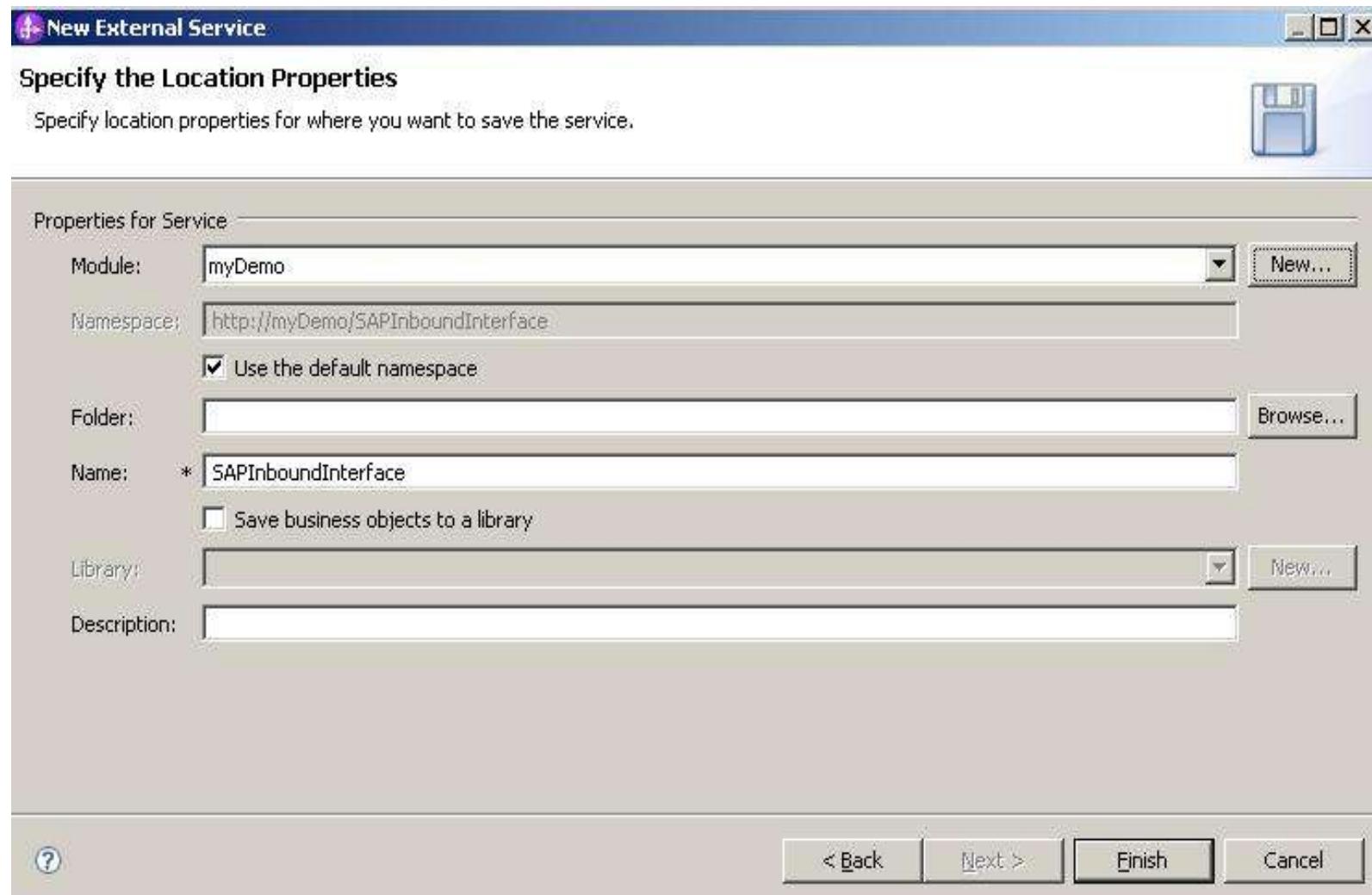
< Back

Next >

Finish

Cancel





Business Integration - myDemo/sca.module - IBM WebSphere Integration Developer 7.0 - C:\PMRArchive\openmic\workspace7

File Edit Navigate Search Project Window Help



Business Integration X

Integration Solutions [New...](#)

New integration solution

Projects [New...](#)

- + CWYAP_SAPAdapter
- + CWYAP_SAPAdapter_Tx
- + CWYFF_FlatFile
- + myDemo

myDemo - Assembly Diagram X

Palette



Favorites

Components

Untyped Component

Human Task

Outbound Imports

Inbound Exports

Outbound Adapters

Inbound Adapters



Task Flows Build Activities Properties Problems Server Logs Services

| Server | State | Status |
|-----------------------------------|---------|--------|
| WebSphere Business Monitor Server | Stopped | |
| WebSphere ESB Server v7.0 at k | Stopped | |
| WebSphere Process Server v7.0 | Stopped | |

myDemo - Assembly Diagram

Palette

Favorites

Components

Outbound Imports

Inbound Exports

Outbound Adapters

CICS

E-mail

Flat File

FTP

IMS

iSeries

JDBC

JD Edwards Enter...

Lotus Domino

PeopleSoft

Oracle E-Business ...

SAP

Siebel

Inbound Adapters

GRP SAPInboundInterface

New External Service

Select the Service Type or Registry

Select the type of service to create or registry to browse.

Filter: type filter text

Available types:

- Adapters
 - Flat File
 - Advanced: Create a Flat File service using the complete wizard
 - Simple: Create an outbound Flat File service to write to a local file

Description:

The Flat File outbound pattern creates a service that stores data in a file in a directory on the local file system. If the required output format is not an XML Format, you can specify a data handler that will transform the business object to the file content format.

? < Back Next > Finish Cancel

Task Flows Build Activities Properties Problems Server Logs Servers

New Outbound Flat File Service

Flat File service name

Specify the name and location of the outbound Flat File service.

Module: myDemo

Namespace: http://myDemo/FlatFileImport Default

Folder:

Name: FlatFileImport

< Back Finish Cancel

New Outbound Flat File Service

Business object and output directory

Specify the business object and the output directory where the business object contents will be written.



What business object do you want to write to the output file?

Business object:

Where do you want to create the output file?

Output directory:



< Back

Next >

Finish

Cancel

New Outbound Flat File Service

Business object and output directory

Specify the business object and the output directory where the business object contents will be written.

What business object do you want to write to the output file?

Business object: Browse...

Where do you want to create the output file?

Output directory: Browse...

Data Type Selection

Filter by type, namespace, or file (? = any character, * = any string): New...

Matching data types:

- SapIDocControlRecord
- SapOrders03**
- SapOrders03DataRecord
- SapOrders03E2cucfg003
- SapOrders03E2cuins002
- SapOrders03E2cuprt002
- SapOrders03E2curef
- SapOrders03E2cuval002
- SapOrders03E2edc01
- SapOrders03E2edc02
- SapOrders03E2edc03
- SapOrders03E2edc04

Qualifier:

< Back Next > Finish Cancel

Server Logs Servers Status

New Outbound Flat File Service

Business object and output directory

Output directory must be specified.

What business object do you want to write to the output file?

Business object: SapOrders03 {http://www.ibm.com/xmlns/prod/websphere/j2ca/sap/sap}

Where do you want to create the output file?

Output directory:

Browse For Folder

Choose an output directory:

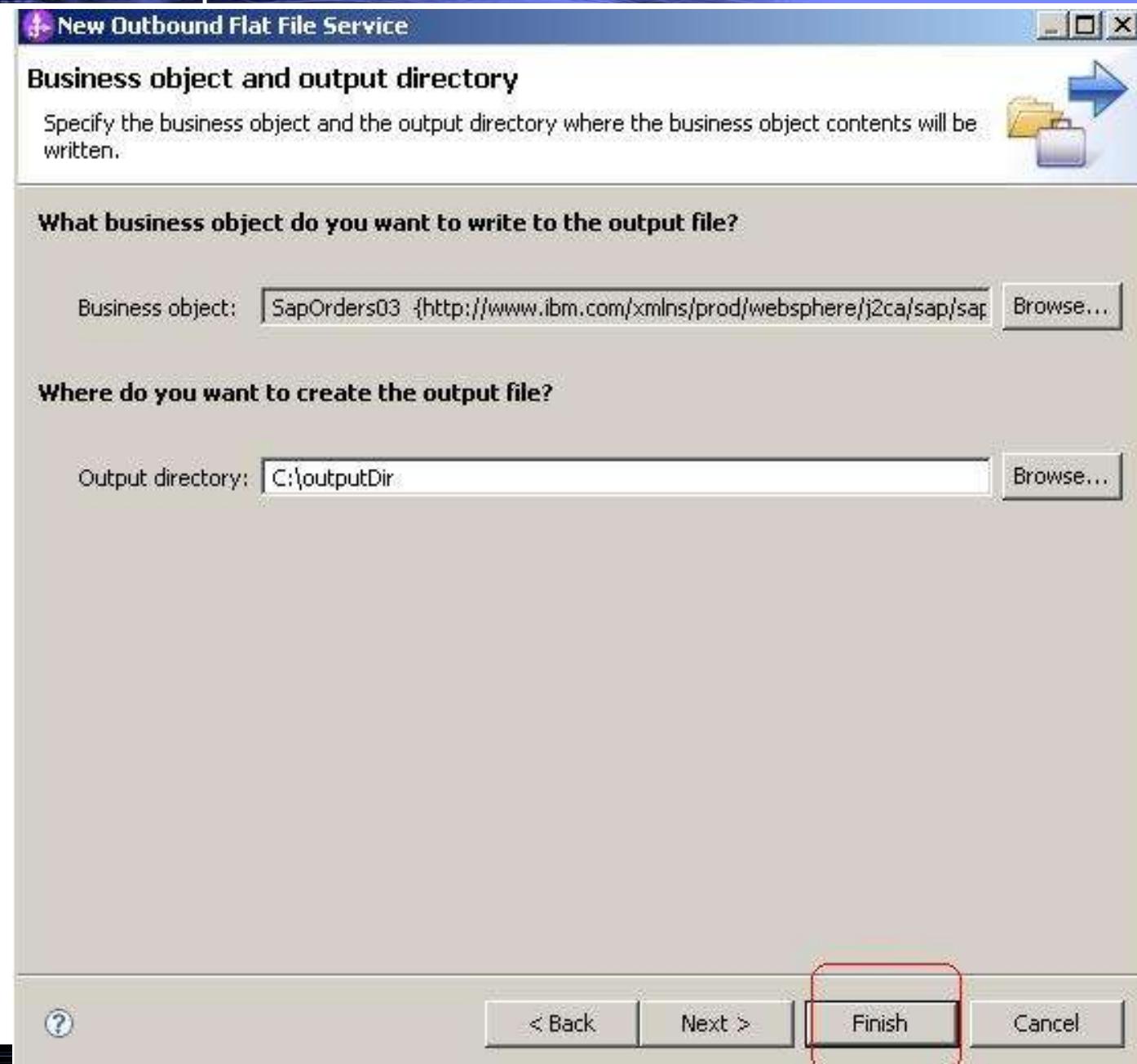
3½ Floppy (A:)
Local Disk (C:)
 Documents and Settings
 outputDir
 PMRArchive
 Program Files
 Tool
 WINDOWS
CD Drive (D:)
Shared Documents
user's Documents

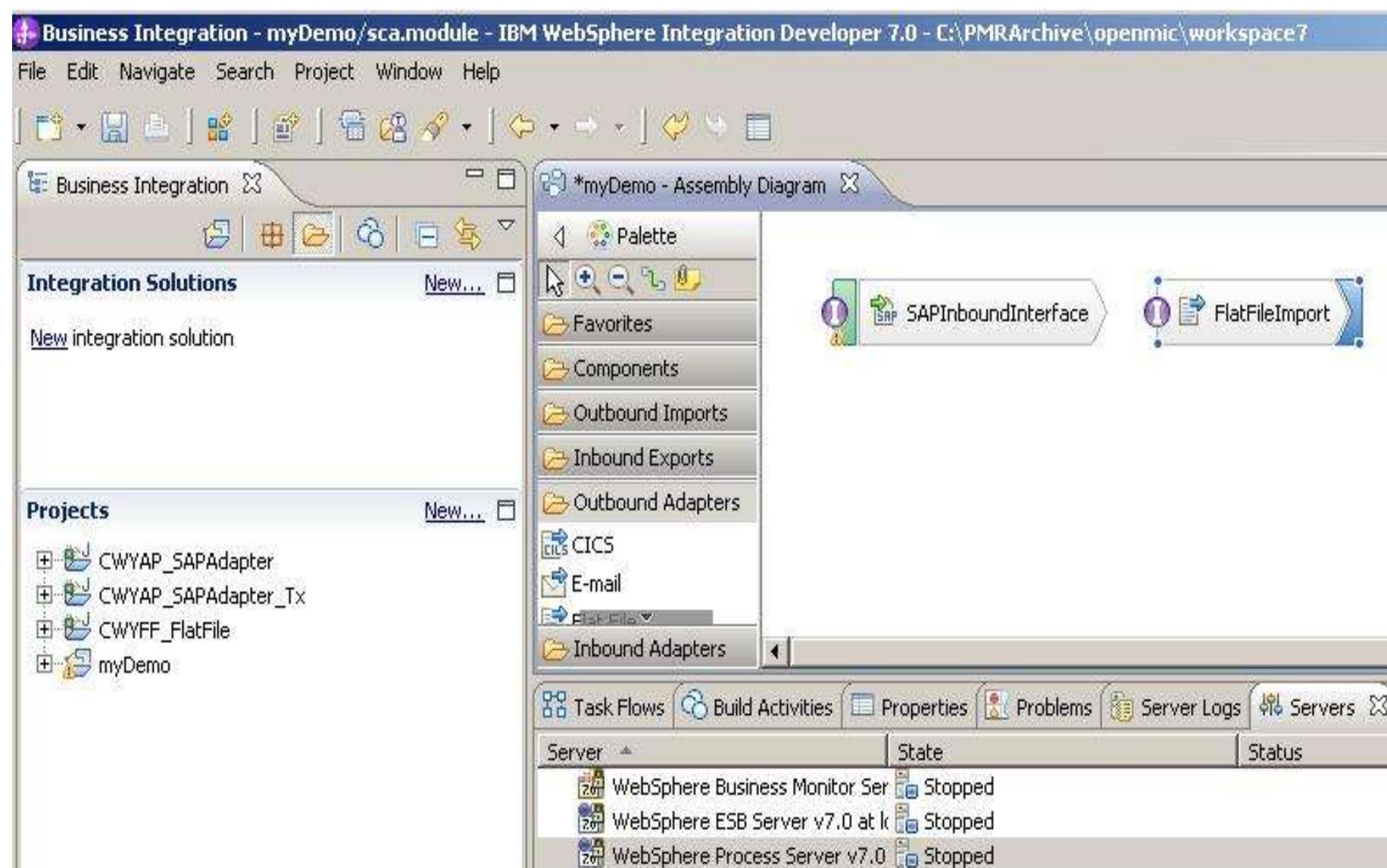
Folder: outputDir

< Back

Server Logs Servers Status

Make New Folder





Business Integration - myDemo/sca.module - IBM WebSphere Integration Developer 7.0 - C:\PMRArchive\openmic\workspace?

File Edit Navigate Search Project Window Help



Business Integration



Integration Solutions

New...

New integration solution

Projects

New...

- + CWYAP_SAPAdapter
- + CWYAP_SAPAdapter_Tx
- + CWYFF_FlatFile
- + myDemo

*myDemo - Assembly Diagram X

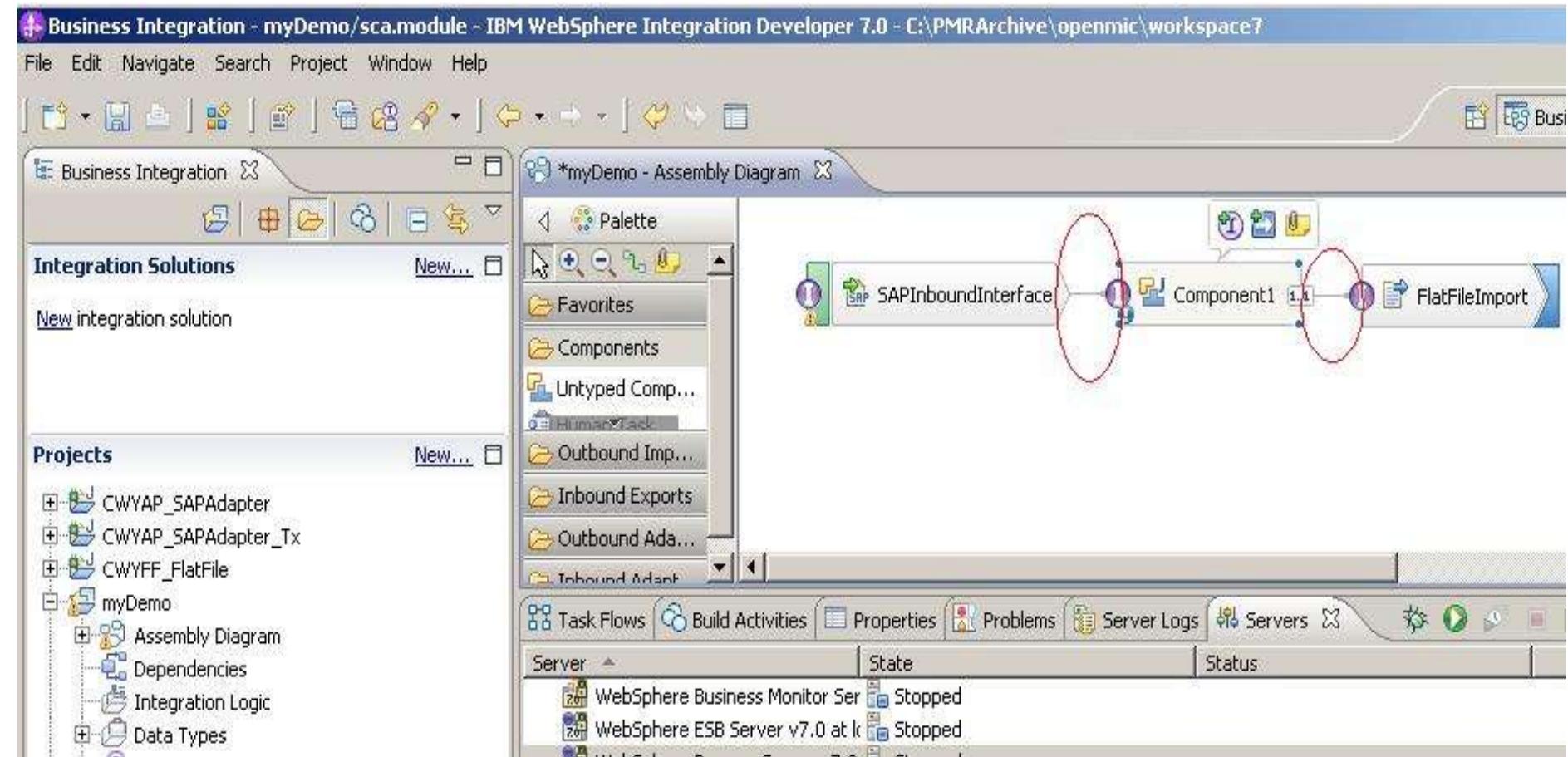
- < Palette
- +
- Favorites
- Components
- Untyped Component
- Human Task
- Java
- Mediation Flow
- Outbound Imports
- Inbound Exports
- Outbound Adapters
- Inbound Adapters

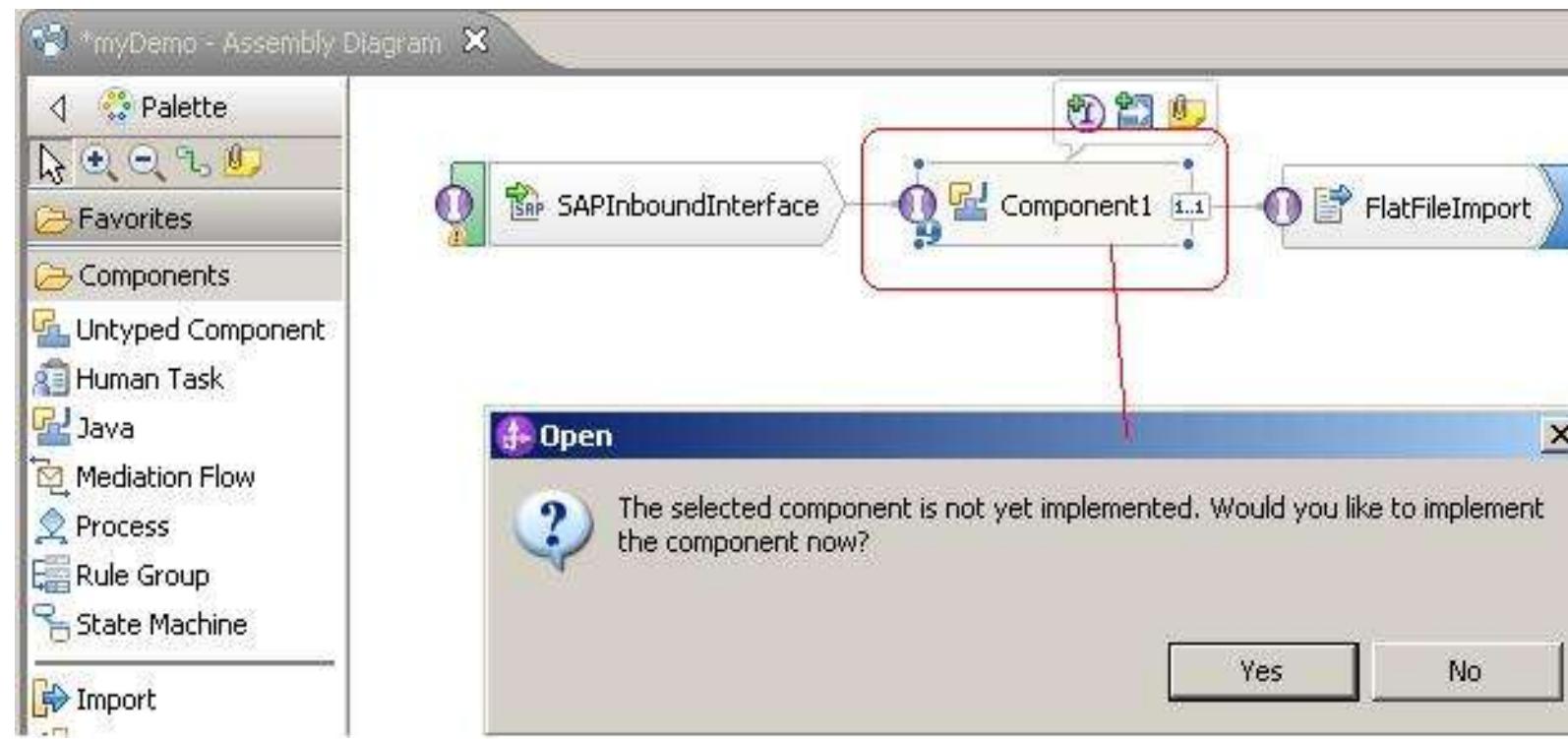


Task Flows Build Activities Properties Problems Server Logs Servers

| Server | State | Status |
|--------|-------|--------|
|--------|-------|--------|

| | |
|--------------------------------|---------|
| WebSphere Business Monitor Ser | Stopped |
| WebSphere ESB Server v7.0 at k | Stopped |
| WebSphere Process Server v7.0 | Stopped |

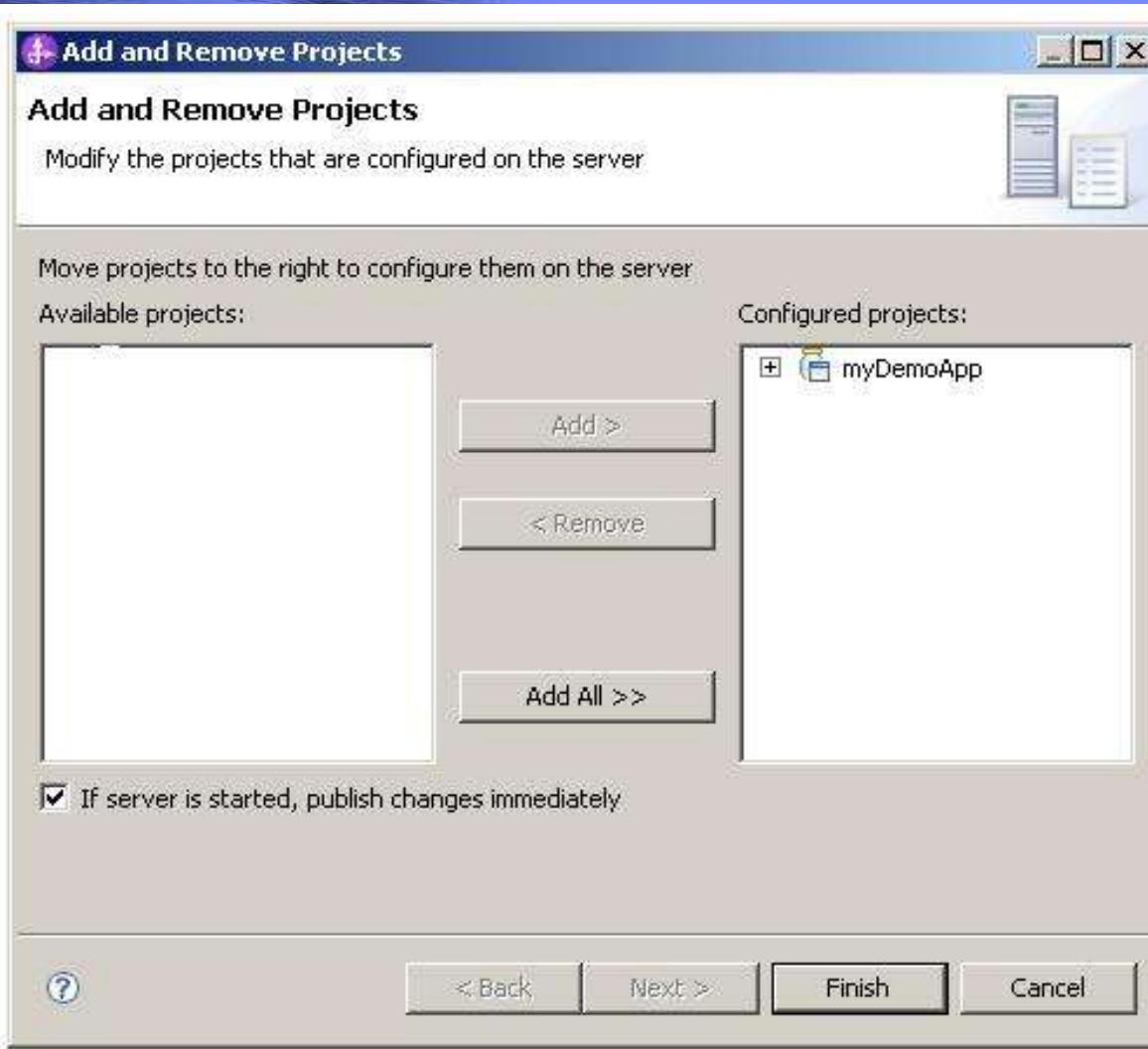




The screenshot shows a Java code editor window titled "Component1Impl1.java". The code is annotated with Javadoc-style comments explaining the presence of complex types like DataObject. The code itself defines a method named "emitCreateAfterImageSapOrders03" which prints a message to System.out, locates a service, and invokes a method on it. A callout box highlights the print statements.

```
* named "SAPInboundInterface".  
*  
* The presence of commonj.sdo.DataObject as the return type and/or as a parameter  
* type conveys that it is a complex type. Please refer to the WSDL Definition for more information  
* on the type of input, output and fault(s).  
*/  
public void emitCreateAfterImageSapOrders03(  
    DataObject emitCreateAfterImageSapOrders03Input) {  
    // To get or set attributes for DataObject emitCreateAfterImageSapOrders03Input, use the APIs as shown below  
    // To set a string attribute in emitCreateAfterImageSapOrders03Input, use emitCreateAfterImageSapOrders03Inp  
    // To get a string attribute in emitCreateAfterImageSapOrders03Input, use emitCreateAfterImageSapOrders03Inp  
    // To set a dataObject attribute in emitCreateAfterImageSapOrders03Input, use emitCreateAfterImageSapOrders03In  
    // To get a dataObject attribute in emitCreateAfterImageSapOrders03Input, use emitCreateAfterImageSapOrders03In  
    System.out.println("-----Received event from SAP and going to deliver it to FlatFile Adapter-----");  
    this.locateService_FlatFileImportPartner().invoke("create",emitCreateAfterImageSapOrders03Input);  
    System.out.println("-----Delivered the event to FlatFile Adapter-----");  
}
```

- Human Task
 - Java
 - Mediation Flow
 - Process
 - Rule Group
 - State Machine
-
- Import
 - Export
 - References
-
- Interface Map (De...)
 - Selector
-
- Outbound Imports
 - Inbound Exports
 - Outbound Adapters
 - Inbound Adapters



| Server | State | Status |
|--------------------------------|---------|--------------|
| WebSphere Business Monitor Ser | Stopped | |
| WebSphere ESB Server v7.0 at k | Stopped | |
| WebSphere Process Server v7.0 | Started | Synchronized |
| myDemoApp | Started | Synchronized |

IDoc Edit Goto Utilities Settings System Help

Test tool for IDoc processing

Standard inbound Inbound function module Inbound file Standard outbound processing

| | | |
|---------|---------------------------|----------------------|
| EDIDC | 1000000000000274002620 03 | 1A000000004LSALETEST |
| E1EDK01 | M01 1.2 99999999999 | 111 |
| E1EDK14 | ORGMYORGNIZATION | |

Outbound processing of IDoc

Start IDoc outbound procg of file immed.

No. of IDocs to be generated (repeat factor)

Receiver port A000000004

PortType tRFC port

Log.destination: RFCLF

The screenshot shows the SAP Test tool for IDoc processing. At the top, there's a menu bar with options like IDoc, Edit, Goto, Utilities, Settings, System, and Help. Below the menu is a toolbar with various icons. The main title is "Test tool for IDoc processing". Underneath, there are tabs for Standard inbound, Inbound function module, Inbound file, and Standard outbound processing. The Standard outbound processing tab is selected. On the left, there's an IDoc structure tree with nodes EDIDC, E1EDK01, and E1EDK14. The E1EDK01 node is expanded, showing its details: M01 1.2 99999999999 and ORGMYORGNIZATION. A modal dialog box titled "Outbound processing of IDoc" is open in the center. It contains a checkbox "Start IDoc outbound procg of file immed." which is checked, and a text input field "No. of IDocs to be generated (repeat factor)" with the value "1". Below that, it shows "Receiver port" set to "A000000004", "PortType" set to "tRFC port", and "Log.destination:" set to "RFCLF". At the bottom of the dialog are two buttons: a green checkmark and a red X.

| | | | | |
|--------------------------|-------------|-------------------------------|----------|---|
| <input type="checkbox"/> | Log message | Apr 19, 2010 11:06:39,343 CST | 00000074 | WSVR0200I: Starting application: myDemoApp |
| <input type="checkbox"/> | Log message | Apr 19, 2010 11:06:58,203 CST | 00000074 | WSVR0221I: Application started: myDemoApp |
| <input type="checkbox"/> | Log message | Apr 19, 2010 11:17:49,781 CST | 00000011 | -----Received event from SAP and going to deliver it to FlatFile Adapter----- |
| <input type="checkbox"/> | Log message | Apr 19, 2010 11:17:50,250 CST | 00000011 | isGloable element==== true |
| <input type="checkbox"/> | Log message | Apr 19, 2010 11:17:50,343 CST | 00000011 | -----Delivered the event to FlatFile Adapter----- |

Address C:\outputDir

| Name | Size | Type | Date Modified |
|-------------------|------|---------------|--------------------|
| SapOrders03.1.txt | 3 KB | Text Document | 4/19/2010 11:17 AM |
| SapOrders03.seq | 1 KB | SEQ File | 4/19/2010 11:17 AM |

SapOrders03.1.txt - Notepad

File Edit Format View Help

```
<?xml version="1.0" encoding="UTF-8"?>
<p:Saporders03 xsi:type="p:Saporders03" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"
  xmlns:p="http://www.ibm.com/xmlns/prod/websphere/j2ca/sap/saporders03"><SAPtransactionID>0
  91ECC150B244BCBCCFE000D</SAPtransactionID><SapOrders03IDocBO><SapIDocControlRecord><Receiv
  erPort>A000000004</ReceiverPort><PartnerTypeofSender>LS</PartnerTypeofSender><PartnerFunct
  ionofSender></PartnerFunctionofSender><TestFlag></TestFlag><LogicalMessageCode></LogicalMe
  ssageCode><NameofBasicType>ORDERS03</NameofBasicType><PartnerNumberofSender>ERPCLNT200</Pa
  rtnerNumberofSender><EdiStandard></EdiStandard><EdiArchiveKey></EdiArchiveKey><IdocCreatio
  nTime>202444</IdocCreationTime><IdocType
  xsi:nil="true"/><NameofTablestructure>EDI_DC40</NameofTablestructure><IdocCreationDate>201
  00418</IdocCreationDate><ReferenceToMessageGroup></ReferenceToMessageGroup><OutputMode>2</
  OutputMode><Client>100</Client><IdocSadrFieldsInTotal></IdocSadrFieldsInTotal><LogicalMess
  ageType>ORDERS</LogicalMessageType><PartnerNumberofRecipient>ALETEST</PartnerNumberofRecip
  ient><VersionofEdiStandard>0</VersionofEdiStandard><LogicalAddressofRecipient></LogicalAdd
  ress ofRecipient><DirectionForIdocTransmission>1</DirectionForIdocTransmission><LogicalAddr
  essofSender></LogicalAddressofSender><OverridingInInboundProcessing></OverridingInInboundP
  rocessing><IdocSadrFieldsInTotalSender>ERPCLNT200</IdocSadrFieldsInTotalSender><SapRelease
  ForIdoc>620</SapReleaseForIdoc><EdiAleserializationField></EdiAleserializationField><se
  nde
  rPort>SAPMKY1001</SenderPort><IdocNumber>0000000000275001</IdocNumber><EdiMessageType>ORDE
  RS</EdiMessageType><ReferenceToInterchangeFile></ReferenceToInterchangeFile><PartnerFuncti
  onofRecipient></PartnerFunctionofRecipient><ReferenceToMessage></ReferenceToMessage><Logic
  alMessageFunction></LogicalMessageFunction><Extension></Extension><statusOfIdoc>30</status
  OfIdoc><PartnerTypeofRecipient>LS</PartnerTypeofRecipient></SapIDocControlRecord><Saporder
  s03DataRecord><Saporders03E2edk01005><Actioncodeforthewholeeedimessage>M01</Actioncodeforth
  ewholeeedimessage><Flagorderacknowledgmentrequired></Flagorderacknowledgmentrequired><Curre
  ncy>1.2</Currency><Edilocalcurrency></Edilocalcurrency><Exchangerate>999999999999</Exch
  ange
  rate><Termsofpaymentkey></Termsofpaymentkey><Vatregistrationnumber>111</Vatregistrationnum
  ber></saporders03E2edk01005><Saporders03E2edk14><Idocqualifierorganization>ORG</Idocqualife
  rorganization><Idocorganization>MYORGNIZATION</Idocorganization></saporders03E2edk14></sap
  orders03DataRecord></Saporders03IDocBO></p:Saporders03>
```

S&S简明指南

用IBM软件升级和支持来保护用户的软件投资

什么是IBM软件升级和支持(S&S)?

IBM Renewal和Reinstatement为客户提供了一个软件升级和支持(Subscription and Support)的打包解决方案,这个方案适用于每种分布式软件的IBM软件许可协议。

关键特性包括:

- 新产品版本的通知;
- 下载软件最新版本权限—用来增强应用软件的稳定性,可依赖性和提高性能
- 对业务关键停机状况提供 24x7 技术支持
- 对所有指定的IT人员提供技术支持
- 提供在线的工具和资源以管理许可证和使用技术支持

请注意上述的每个单独的特性不能分开购买,而是作为整体购买。

软件支持的好处?

IBM 软件升级和支持帮助全球的客户保持系统正常运行—保证当客户在需要的时候得到支持,并使得作为整体软件方案的回报得到提升的同时风险降到最低。

IBM 软件支持提供了:

通过电话向产品专家咨询与IBM软件产品相关的特定问题,和与任务相关的任何问题—从安装到当前支持的操作等等

对严重程度为“1”的问题提供 24x7 的技术支持。如果客户指明了一个严重程度为“1”的问题, IBM 将不间断的提供支持工作。

提供在线的 24x7 技术支持,这包括增强的贯穿 IBM 软件支持站点的自助服务和搜索功能;对IBM技术支持知识库的电子访问权限

软件升级的好处是什么?

升级是保证用户拥有最新版本技术的最划算的方法。通过升级和支持, 用户能够根据他们的业务需求升级到新的版本。

IBM 软件升级:

- 客户购买软件的成本更低;
- 为客户提供按需升级的灵活性;
- 优化软件升级和迁移成本的预算过程

用户如是说:

选用 IBM 的软件维护重要意义:

IBM 软件知识库提供软件开发的信息和要诀
在软件开发流程中,确保软件能适时升级和校准
对于严重事件, IT 需要 24x7 的维护服务,降低
风险

提高IT人员的专业技能,通过IT提高企业的生产力

随时关注技术支持及升级产品
随时访问各种IBM网络技术资源, 访问最新软件创新

軟體維護帶給我們的好處:

- 降低采购软件的成本
- 减少无预期采购所带来的困境
- 减少灾难发生的可能性
- 将信息技术变成企业的核心竞争力
- 软件解决方案使企业处于行业领先地位

IBM软件升级和支持没有包括的是什么?

现场支持

网络设计

对已经过了支持结束日期 (End of Support)

分析客户的程序代码

(例如, 应用软件)

诊断与分析非IBM产品

IBM软件升级和支持包括的什么?

| 特性一览 | 没有软件升级和支持 | 有软件升级和支持(S&S) |
|---|-----------|---------------|
| 下载新版本和升级 | 无 | 有 |
| 发送新版本和升级的电子通知 (eNotifications) | 无 | 有 |
| 制定支持联系人 | 无 | 无限制 |
| 严重程度为“1”的电话支持 | 无 | 24x7 |
| 远程语音支持 | 无 | 有 |
| Electronic Service Request —IBM分布式软件全球问题提交在线工具的使用 | 无 | 有 |
| IBM 支持 Web 站点: 增强的自助与高级搜索功能..... | 受限 | 24x7 |
| 下载缺陷补丁 | 有 | 全面开放 24x7 |
| 访问技术文档 | 有 | 有 |

yourdotcom
IBM.COM

Q&A