Middleware data usability and availability

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Abstract

1. Study BizTalk data exchange formats.
2. Implement data exchange interfaces which connection WinRFID and BizTalk flawlessly.
   - Define rules for data transform
   - Create application to consume WinRFID data transfer to BizTalk
   - XML Schema for data explanation
   - Pass data from WinRFID to BizTalk then to MySAP (Adapter)

What have done in my project are studied BizTalk data exchange formats and made a simple rule. By studying XML Schema, I can understand BizTalk project schema. But I couldn’t implement data exchange interfaces.

Introduction

1. Roles of Middleware in RFID System is getting important.
   - Core Role of Cut down on expenses and improvement of efficiency
   - Application Integratoin and Data management

2. IT vendor trend of RFID Middleware is keen.
   - IBM, SAP, Oracle etc.. keen competitoin

3. Importance of Middle SW to activate RFID
   - Solution integration, make added value through a data process and share.

Previous Research

Understanding about RFID
- I studied general ideas of RFID and usage of RFID in real world.
Installation of Microsoft BizTalk Server
- To install Microsoft BizTalk Server, I bought docking station and I tried to install several times but every time I met errors such as SSO error, had trouble in connection with SQL Server Analysis Services and connection with .NET.

Understanding about XML Schema
- I studied simple XML Schema model and elements, attributes, grouping, data types.

Make simple rule
- I made a scenario about Logistics Management System between producer and customer.
  And I created a BizTalk project for the schema, and then define a product schema to define the structure of messages to be exchanged within the solution.

[Project Main content]

- Software and Hardware setting
  - Software
  - Hardware
    Intel Pentium M Processor 1300MHz 599MHz 512MB RAM Notebook

- Creating schema (process 1~8)
  - Scenario : It is a Logistics Management System between producer and customer.
    I created a BizTalk project for the schema, and then define a product schema to define the structure of messages to be exchanged within the solution.

This is a processing to create a product schema. (1~8)

1. Created a LMSSolution.
2. Added a new BizTalk Server Project (LMSMessaging).

3. Created a ProductList schema.
4. Created the schema record.

5. Promoted schema Properties.

The property fields are promoted so that their values can be referenced for content based routing purposes and orchestration.

6. Validating Schema
Validating Schema command will be used to determine whether the schemas contain any internal inconsistencies, or have other issues that might prevent them from being used effectively for processing instance messages.

7. Assigning a Strong Name to the Assemblies
A strong-named assembly provides several security benefits. A strong name guarantees the uniqueness of the assembly by assigning a digital signature and a unique key pair. This also protects the lineage of the assembly by ensuring that no one else can generate a subsequent version of that assembly. And finally, a strong name provides a strong integrity check to guarantee that the contents of the assembly have not been changed since it was built.

8. Building the Schema Project
The assembly is compiled into a DLL file and saved in the …\bin\Development folder within the project folder

Summary

What I’ve done?
- I studied general ideas of RFID and installed BizTalk 2002 and SQL Server 2000 at the first week.
- At the second week I studied XML Schema, re-installed BizTalk 2004 and studied BizTalk solution examples of EAI(Enterprise Application Integration) and B2B(Business-to-Business).
- After then I repeated installation of BizTalk about 2 weeks because it didn’t work on my laptop.
- Finally I found a website could use BizTalk by the remote control. I used Visual Studio Hosted Experience. (https://msdn.demoservers.com/login.aspx?group=biztalk&lab=)
- I studied BizTalk data exchange formats and made simple rules.

BizTalk is not popular, so I couldn’t find examples and references. And there were no books about BizTalk, so I had many difficulties

Reference

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