



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Importing XML DTD or Schema



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This presentation will describe the Import function for XML DTDs and Schemas.

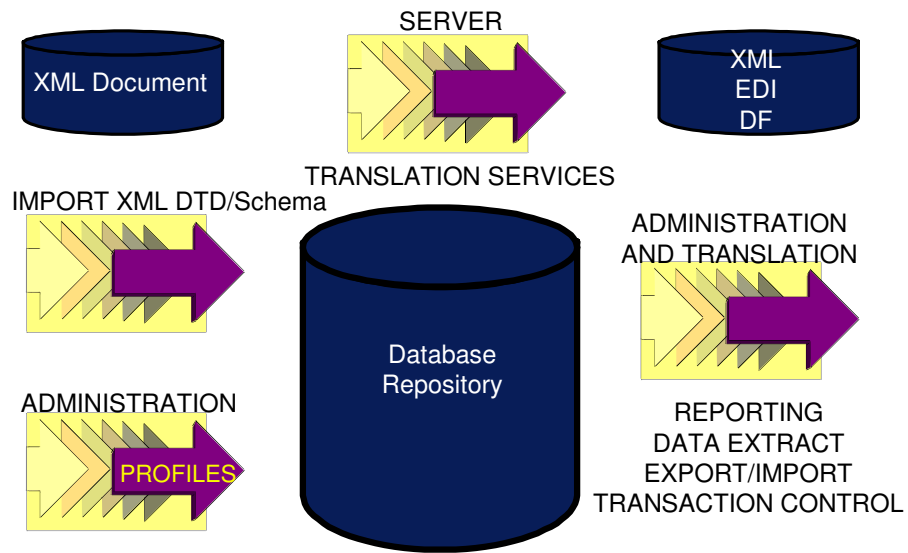
Agenda

- Describe WDI Import Function for XML DTDs and Schemas

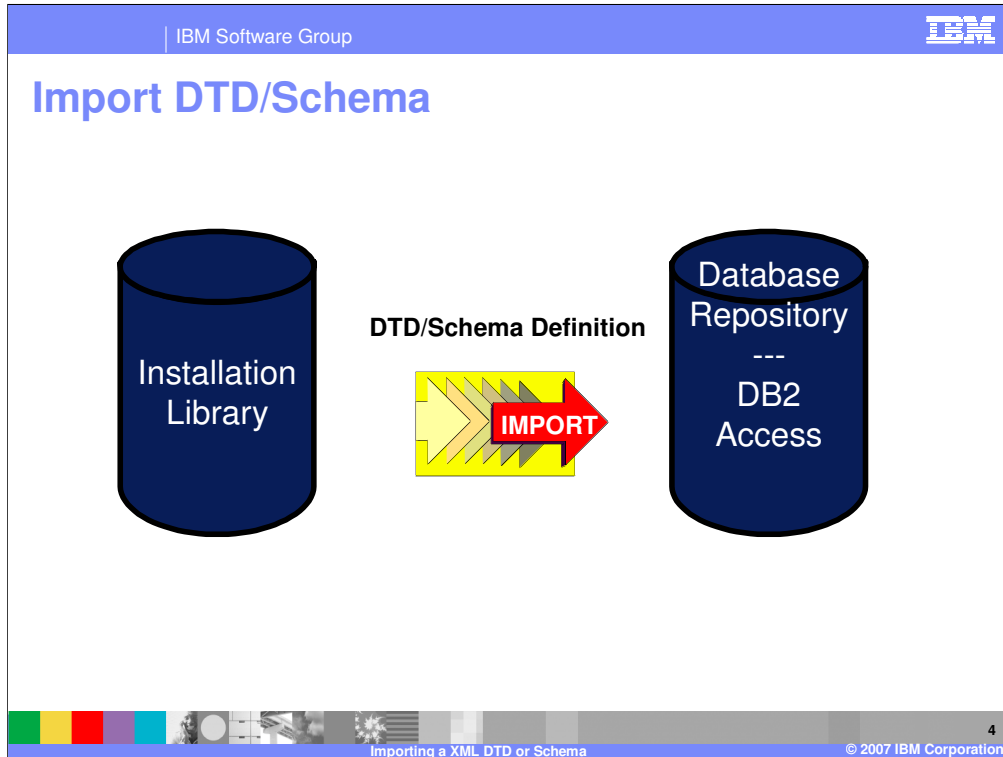


The presentation will describe the WebSphere Data Interchange (WDI) Import function for XML DTDs and Schemas.

WDI Architecture and Components

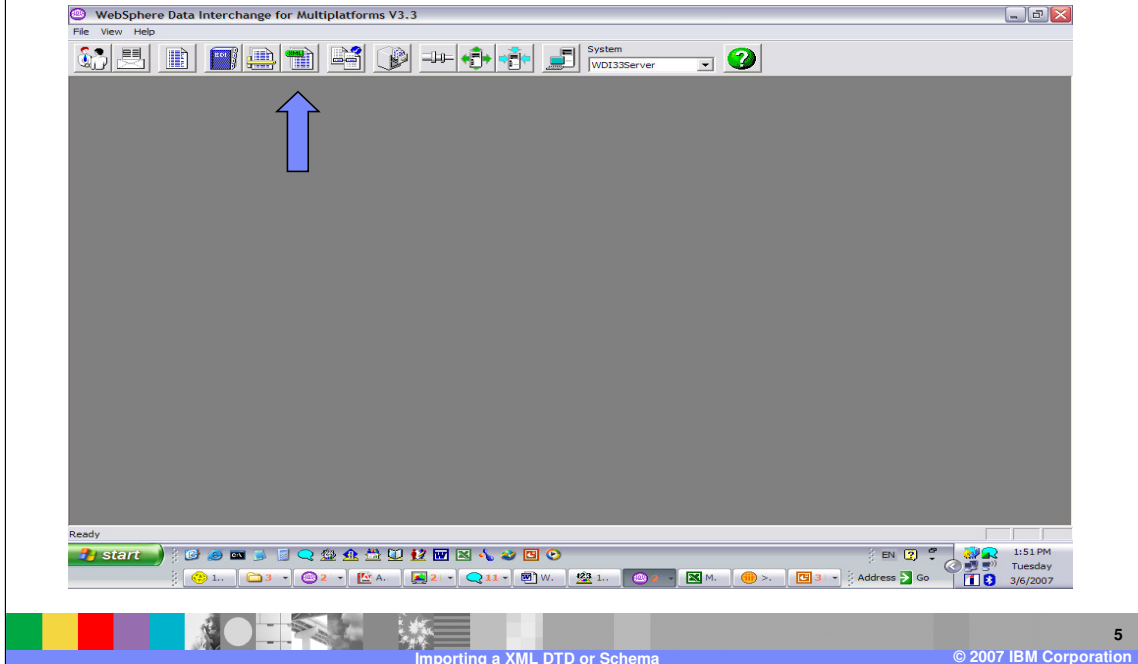


This diagram is an overview of the WDI Architecture and Components.



The Import function is used to move the DTD or Schema definition to the WDI database.

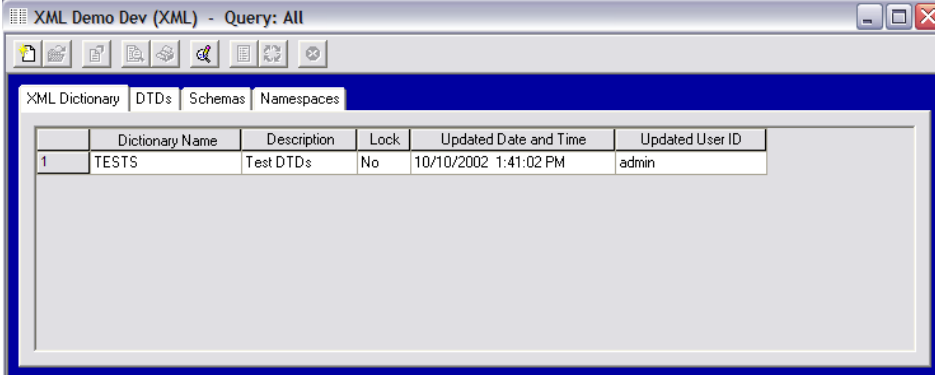
XML Functional Area



To begin the import process using WDI Client go to the XML Functional Area

Open XML functional area

- Create the XML Dictionary from the XML functional area



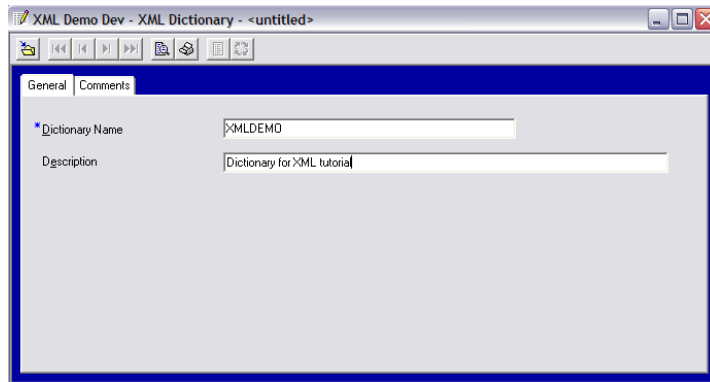
The screenshot shows a web application window titled "XML Demo Dev (XML) - Query: All". The window has a toolbar with various icons and a tabbed interface with four tabs: "XML Dictionary", "DTDs", "Schemas", and "Namespaces". The "XML Dictionary" tab is active and displays a table with the following data:

	Dictionary Name	Description	Lock	Updated Date and Time	Updated User ID
1	TESTS	Test DTDs	No	10/10/2002 1:41:02 PM	admin

Create the XML Dictionary from the XML functional area

Create the XML dictionary

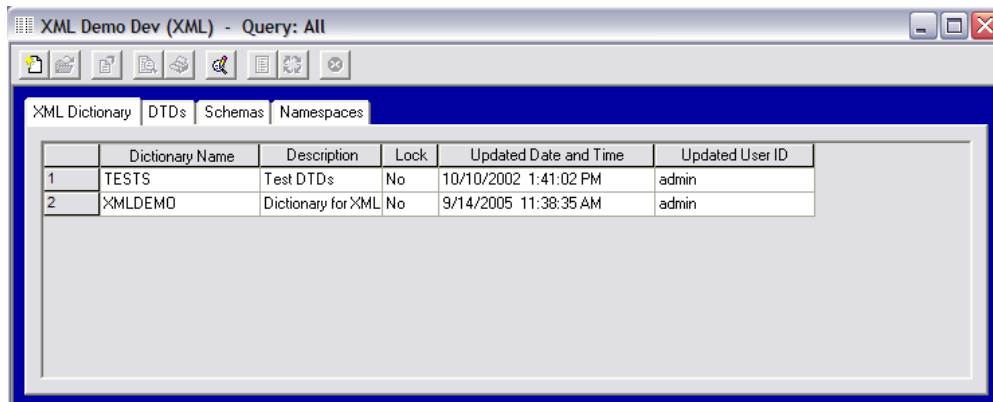
- On the XML Dictionary tab
 - ▶ Create a new XML Dictionary
 - ▶ Fill in the Dictionary Name and Description



On the XML Dictionary tab, create a new XML Dictionary and complete the Dictionary Name and optional Description.

XML dictionary created

- The new XML Dictionary now appears in the list

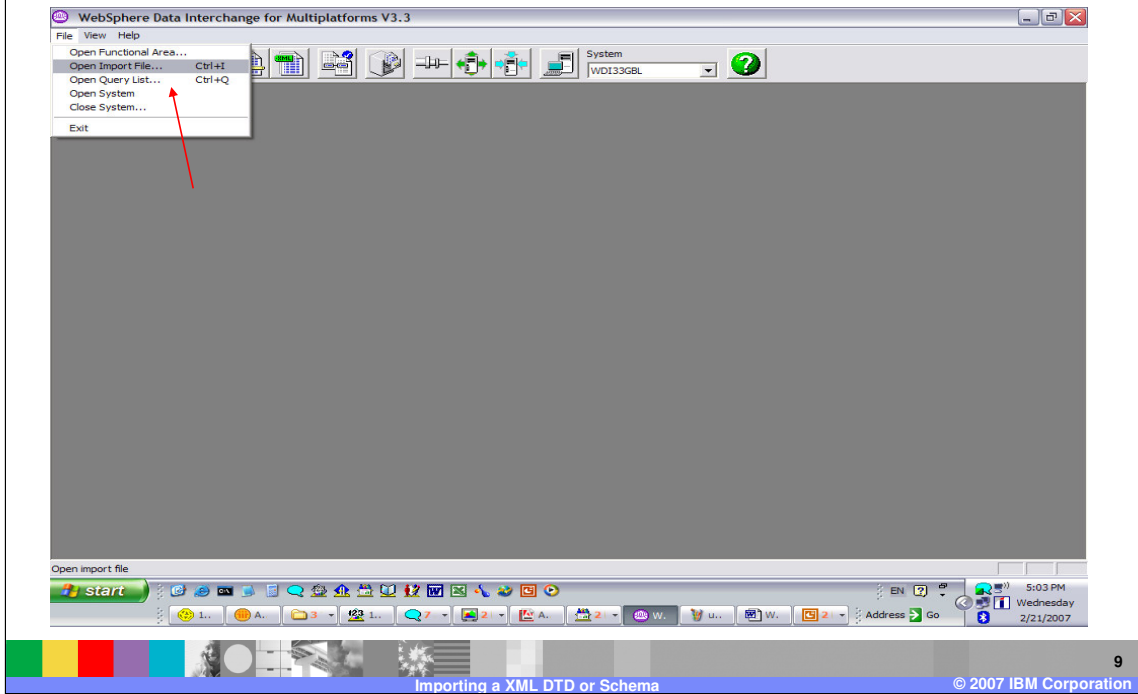


The screenshot shows a window titled "XML Demo Dev (XML) - Query: All". The window contains a table with the following data:

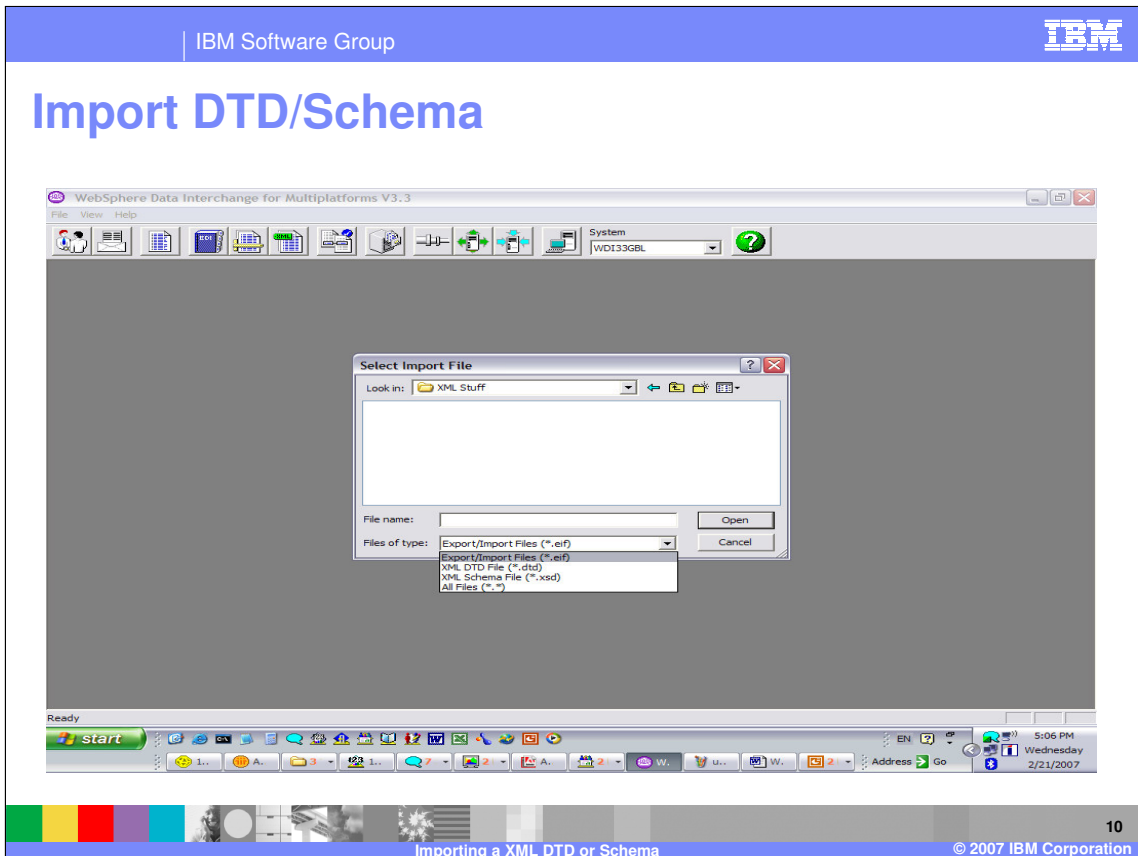
	Dictionary Name	Description	Lock	Updated Date and Time	Updated User ID
1	TESTS	Test DTDs	No	10/10/2002 1:41:02 PM	admin
2	XMLDEMO	Dictionary for XML	No	9/14/2005 11:38:35 AM	admin

The new XML Dictionary now appears in the list.

WDI Architecture and Components

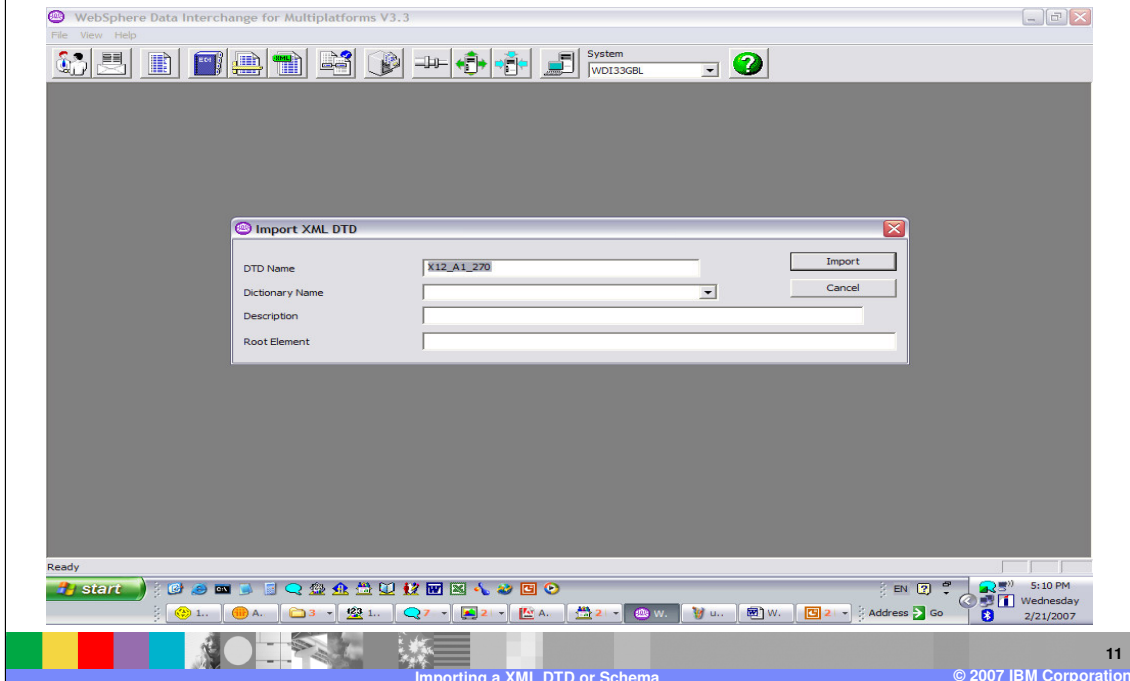


To begin the import process using WDI Client go to File, Open Import File.



The Import function defaults to files with type .eif. XML DTDs and Schemas may be selected from the “Files of Type” drop down.

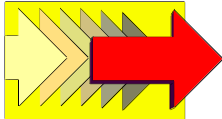
Import DTD/Schema



A WDI XML Dictionary must be specified. Although the Root Element is required for viewing and mapping, this can be modified using administrative function in the WDI Client, XML functional area.

Administration – XML DTD/Schema

ADMINISTRATION

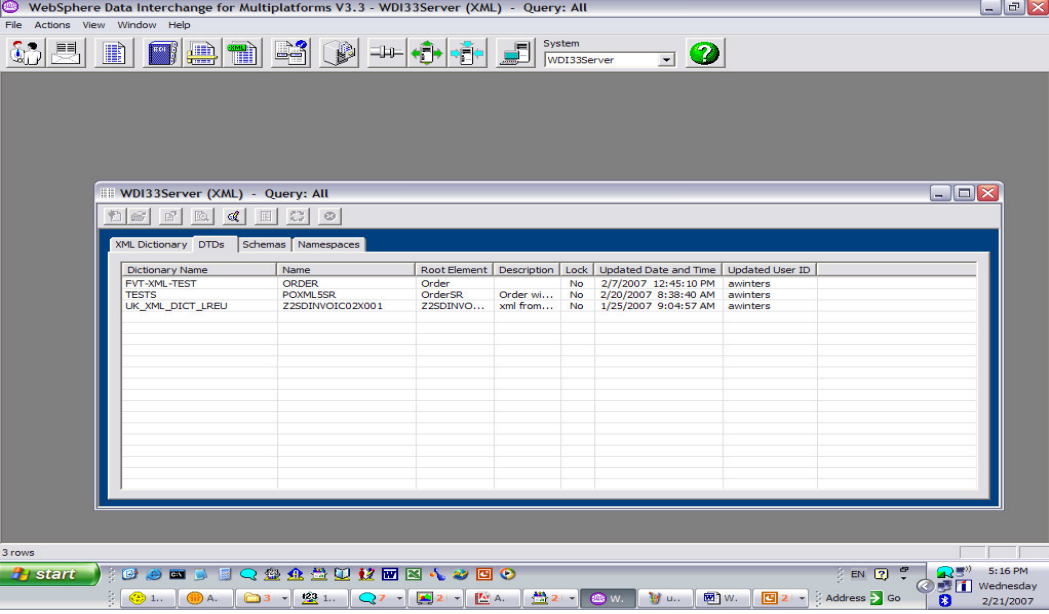


- Profiles
- Standards Maintenance
- Application Data Definitions
- XML DTD/Schema**
- Code Lists
- Maps



When the import is finished the XML DTD or Schema definition is in the WDI database repository.

Import DTD/Schema



WebSphere Data Interchange for Multiplatforms V3.3 - WDI33Server (XML) - Query: All

File Actions View Window Help

System WDI33Server

WDI33Server (XML) - Query: All

XML Dictionary DTDs Schemas Namespaces

Dictionary Name	Name	Root Element	Description	Lock	Updated Date and Time	Updated User ID
FVT-XML-TEST	ORDER	Order		No	2/7/2007 12:45:10 PM	awinters
TESTS	POXMLSSR	OrderSR	Order wi...	No	2/20/2007 8:38:40 AM	awinters
LK_XML_DICT_LREU	Z2SDINVOIC02X001	Z2SDINVO...	xml from...	No	1/25/2007 9:04:57 AM	awinters

3 rows

Start

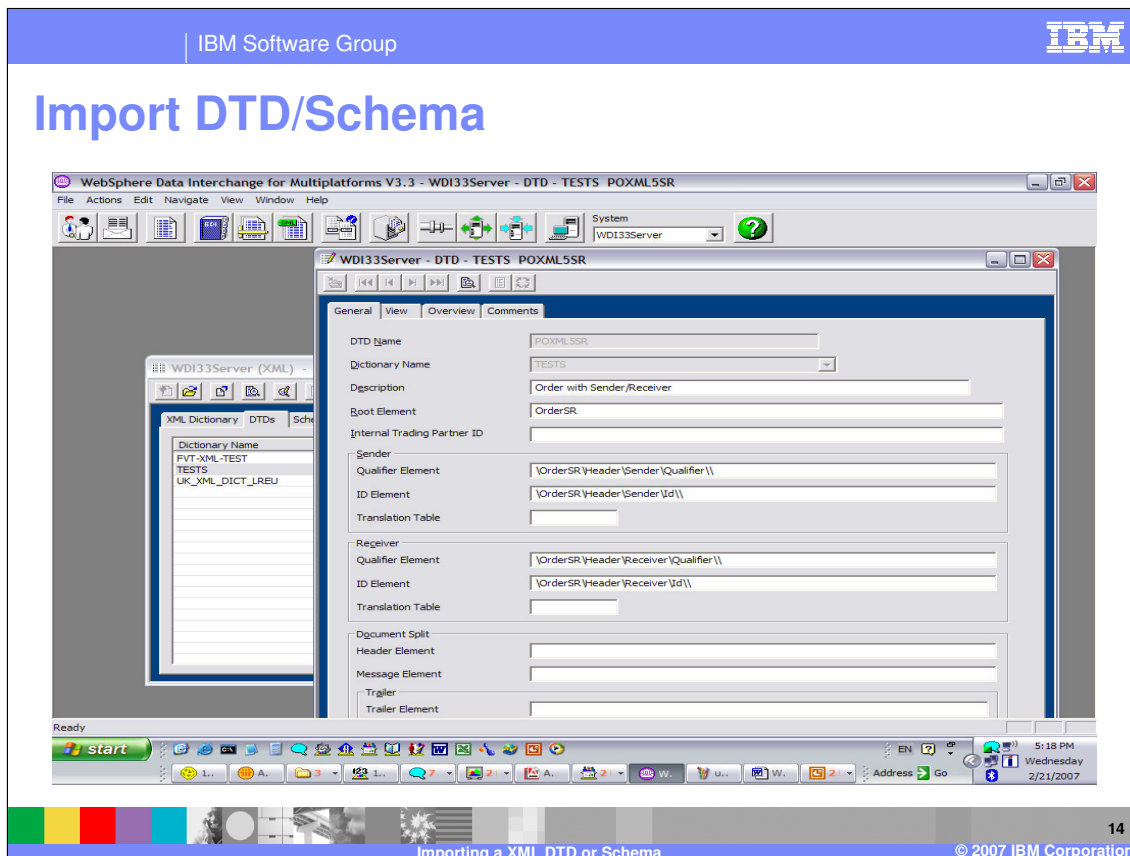
EN 5:16 PM Wednesday 2/21/2007

Address Go

Importing a XML DTD or Schema

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You can open the DTD or Schema that was imported.



The general tab hold information most commonly updated.

Root element name (required) - The XML element name for the root element. The root element is an element that completely contains all other elements of the document. The maximum length is 64 characters.

Sender Qualifier element (optional) - The XML element name, attribute, or path that defines the sender qualifier for the standard.

Sender ID element (optional) - The XML element name, attribute, or path that defines the sender ID for the standard.

Translation Table (optional) - If a Sender translation Table is specified, the values from the sender's qualifier element and sender's ID element together with a dot (".") between them. This will be used as a lookup value for the translation table to determine a Trading Partner Profile.

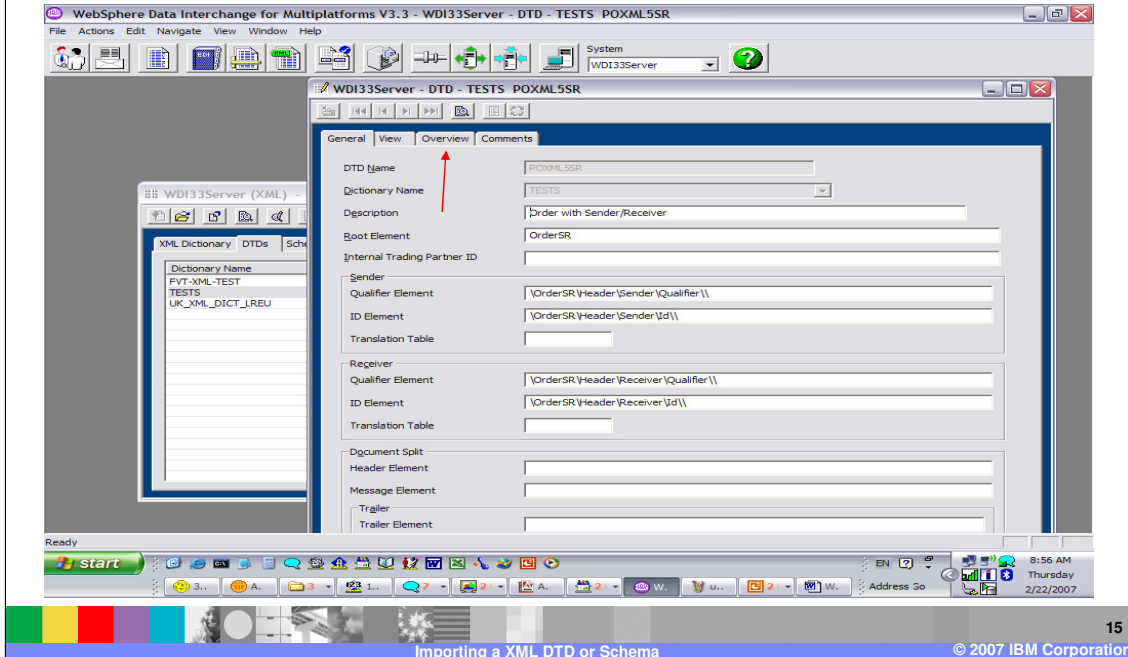
Receiver Qualifier element (optional) - The XML element name, attribute, or path that defines the receiver qualifier for the standard.

Receiver ID element (optional) - The XML element name, attribute, or path that defines the receiver ID for the standard.

Translation Table (optional) - If a Receiver translation Table is specified, the values from the receiver's qualifier element and receiver's ID element together with a dot (".") between them. This will be used as a lookup value for the translation table to determine a Trading Partner Profile.

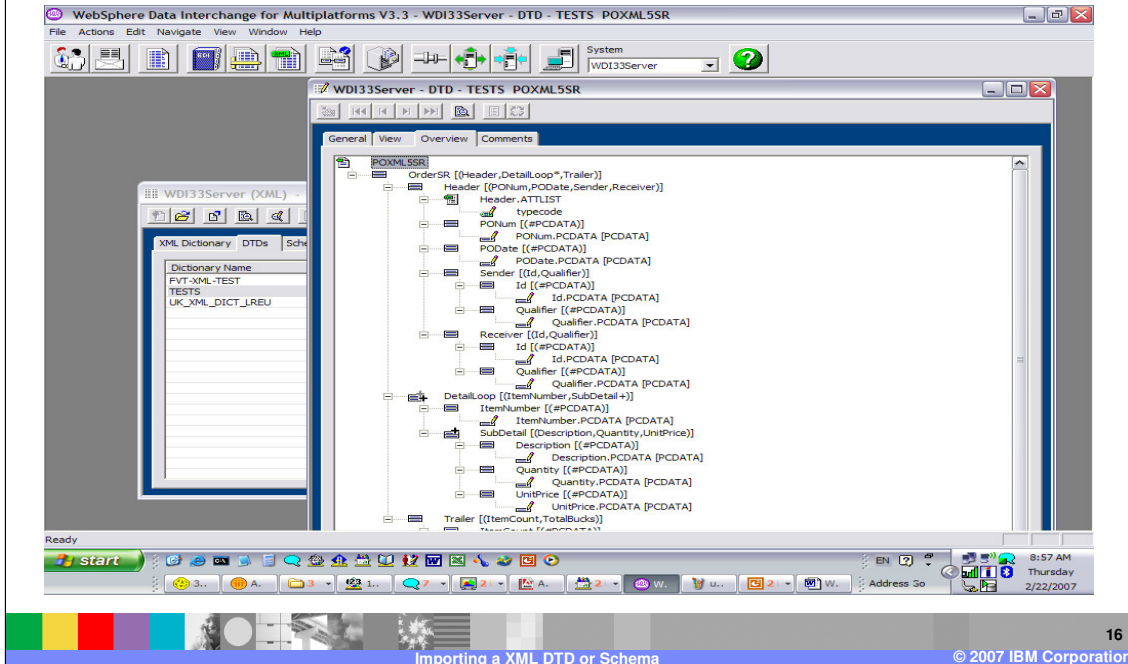
Document Split (optional) - XML document split will take a single XML source document and create multiple XML source documents to be translated using the WebSphere Data Interchange Server.

Import DTD/Schema



The Overview Tab will display the XML DTD or Schema in a tree representation.

Import DTD/Schema



The tree representation is also displayed in the WDI Client mapping functional area when using XML as the source or target message type.

Import DTD/Schema

WebSphere Data Interchange for Multiplatforms V3.3 - WDI33Server - DTD - TESTS POXML5SR

WDI33Server - DTD - TESTS POXML5SR

XML Dictionary (XML)

Dictionary Name

- FVT-XML-TEST
- TESTS
- UK_XML_DICT_LREU

POXML5SR

- OrderSR [(Header,DetailLoop*,Trailer)]
 - Header [(PONum,PODate,Sender,Receiver)]
 - Header:ATTLIST
 - typecode
 - PONum [(#PCDATA)]
 - PONum.PCDATA [PCDATA]
 - PODate [(#PCDATA)]
 - PODate.PCDATA [PCDATA]
 - Sender [(Id, Qualifier, Receiver)]
 - Id
 - Find...
 - Qualifier
 - Id.PCDATA [PCDATA]
 - Qualifier [(#PCDATA)]
 - Receiver
 - Qualifier.PCDATA [PCDATA]
 - DetailLoop [(ItemNumber,SubDetail+)]
 - ItemNumber [(#PCDATA)]
 - ItemNumber.PCDATA [PCDATA]
 - SubDetail [(Description,Quantity,UnitPrice)]
 - Description [(#PCDATA)]
 - Description.PCDATA [PCDATA]
 - Quantity [(#PCDATA)]
 - Quantity.PCDATA [PCDATA]
 - UnitPrice [(#PCDATA)]
 - UnitPrice.PCDATA [PCDATA]
 - Trailer [(ItemCount,TotalBucks)]
 - UnitPrice.PCDATA [PCDATA]

Ready

9:02 AM Thursday 2/22/2007

Importing a XML DTD or Schema

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Various commands are supplied for identifying optional values supplied on the general tab. These commands will set the Trading partner information values.

Import DTD/Schema

The screenshot shows the IBM WebSphere Data Interchange for Multiplatforms V3.3 interface. The main window, titled 'WDI33Server - DTD - TESTS POXML5SR', displays an XML tree structure. A context menu is open over the 'Header' element, showing options: 'XML Document Split', 'Expand All', 'Collapse All', and 'Find...'. A tooltip for 'XML Document Split' lists three options: 'Set As Element Identifying the Header Area', 'Set As Element Identifying Each Message', and 'Set As Element Identifying the Trailer Area'. A secondary window on the left shows the 'XML Dictionary' with entries for 'FVT-XML-TEST', 'TESTS', and 'UK_XML_DICT_LREU'. The bottom status bar indicates 'Importing a XML DTD or Schema' and '© 2007 IBM Corporation'.

These commands will setup the values to be used with the XML Split feature.

Import DTD/Schema

WebSphere Data Interchange for Multiplatforms V3.3 - [WDI33Server - DTD - TESTS - POXML5SR]

File Actions Edit Navigate View Window Help

System
WDI33Server

General View Overview Comments

DTD Name: POXML5SR

Dictionary Name: TESTS

Description: Order with Sender/Receiver

Root Element: OrderSR

Internal Trading Partner ID:

Sender

Qualifier Element: \OrderSR\Header\Sender\Qualifier\

ID Element: \OrderSR\Header\Sender\Id\

Translation Table:

Receiver

Qualifier Element: \OrderSR\Header\Receiver\Qualifier\

ID Element: \OrderSR\Header\Receiver\Id\

Translation Table:

Document Split

Header Element:

Message Element:

Trailer

Trailer Element:

Element Terminator Indicates Start of Trailer Section

Ready

start

2:25 PM
Tuesday
3/6/2007



The Translation Table field can be used if the trading partner id/qualifier in XML source data are in a different form than the Trading Partner profile.

Import DTD/Schema

- Translation Table field can be used if the id/qualifier in XML data are in a different form than the TP profile
 - ▶ ex: <Id> email@us.ibm.com </Id>
- Create a forward translate table to translate the id and/or qualifier to the TP profile name
 - ▶ ex: “email@us.ibm.com” → “email”
- Can also use qualifier as part of lookup
 - ▶ Translate table entry uses form *qualifier.id*
 - ▶ ex: <Id> email@us.ibm.com </Id>
<Qual>smtp</Qual>
Translate table entry would be:
“smtp.email@us.ibm.com” → “email”

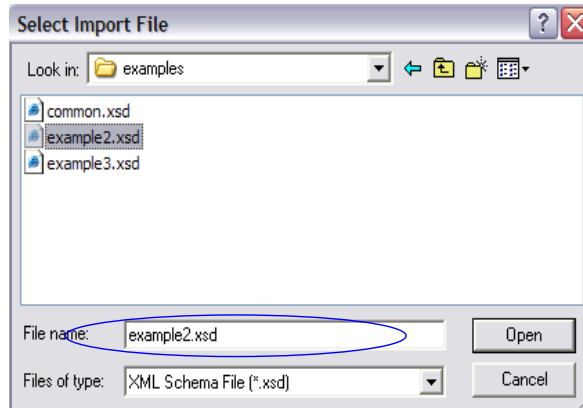


You can create a forward translate table to translate the trading partner Identification from the source data to a Trading Partner Profile. For example smtp.email@us.ibm.com can translate to a profile member email.

Section

XML Schemas

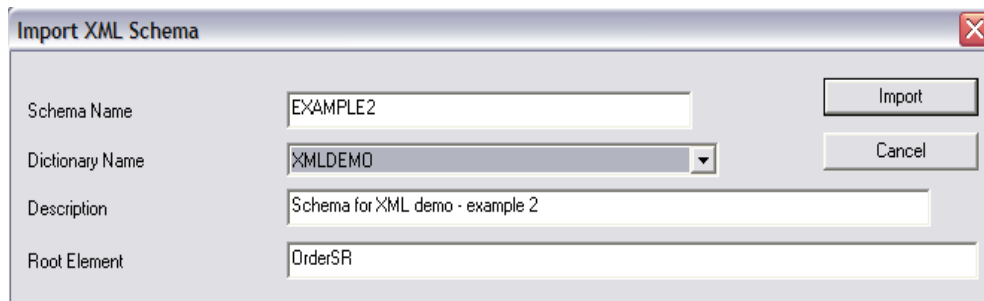
Import the schema



Importing the schema is similar to importing a DTD.

Import DTD/Schema

- Fill in the import fields
 - ▶ Schema Name already filled in
 - ▶ Select dictionary name
 - ▶ Add description if needed
 - ▶ Specify root element



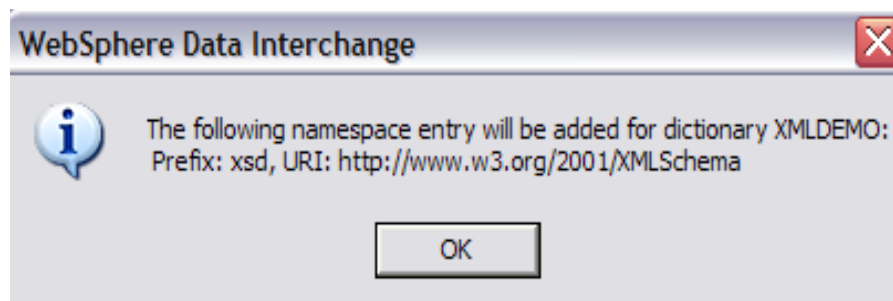
Import XML Schema

Schema Name	EXAMPLE2	Import
Dictionary Name	XMLDEMO	Cancel
Description	Schema for XML demo - example 2	
Root Element	OrderSR	

Select the dictionary name, add a description, and specify the root element.

Import DTD/Schema

- WDI scans schema during import and adds any namespaces that are not already defined for the XML dictionary
- Schemas themselves use namespaces, even if no target namespace



WDI scans schema during import and adds any namespaces that are not already defined for the XML dictionary. Schemas themselves use namespaces, even if no target namespace

Importing nested schemas and DTDs

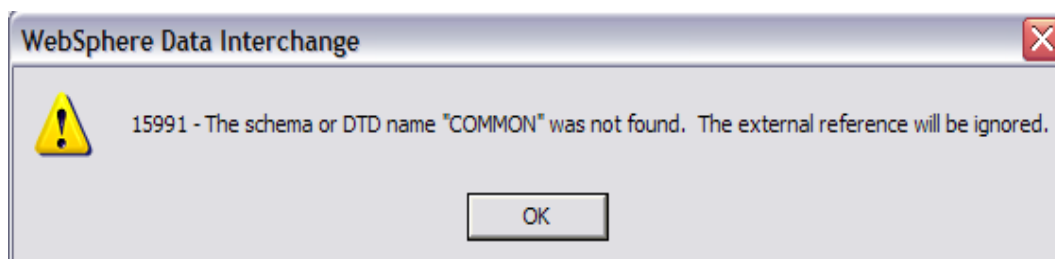
- Nested schemas do not need to have the root element defined
 - ▶ If no root element is defined, they cannot be used as the primary source or target document in a map
- Nested schemas are NOT automatically exported when you export the main schema document
 - ▶ Suggestion – Export the XML dictionary if using nested schemas
- Note: These also apply to DTDs, but nesting seems to be much more common with schemas



When importing nested schemas and DTDs nested schemas do not need to have the root element defined. If no root element is defined, they cannot be used as the primary source or target document in a map. Nested schemas are NOT automatically exported when you export the main schema document. It is suggested that you export the XML dictionary if you are using nested schemas. Note also this also applies to DTDs, but nesting seems to be much more common with schemas.

Missing nested schema

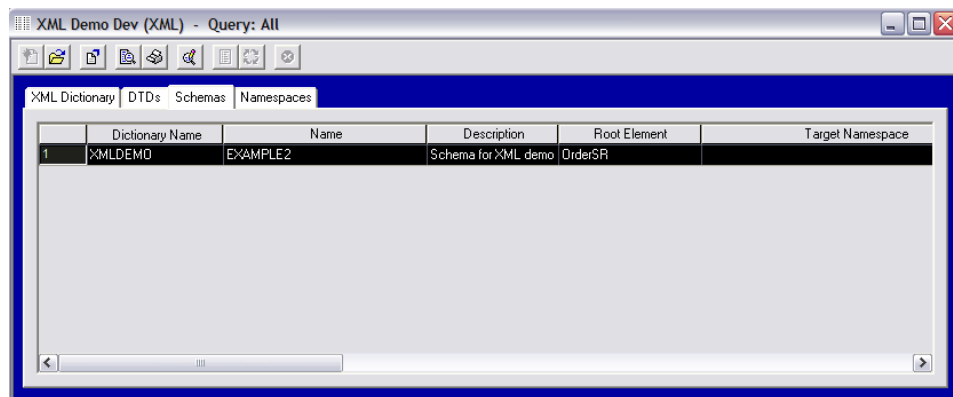
- What happens if you forget to import a nested schema?
- You will see the following when you try to edit the schema or use it in a map
 - ▶ The schema *might* load ok, but typically this will lead to other errors



If you forget to import a nested schema, the schema might load ok but this will lead to other errors.

Import DTD/Schema

- Similar to DTD tab
- Note new column – Target Namespace
 - ▶ No target namespace for this schema



You can view the Schema definition by moving to the Schemas tab in the XML functional area. This is similar to the DTD tab but has the target namespace column.

Import DTD/Schema

XML Demo Dev - Schema - XMLDEMO EXAMPLE2

General View Overview Comments

Schema Name: EXAMPLE2

Dictionary Name: XMLDEMO

Description: Schema for XML demo - example 2

Root Element: OrderSR

Target Namespace:

Sender:

Qualifier Element:

ID Element:

Translation Table:

Receiver:

Qualifier Element:

ID Element:

Translation Table:

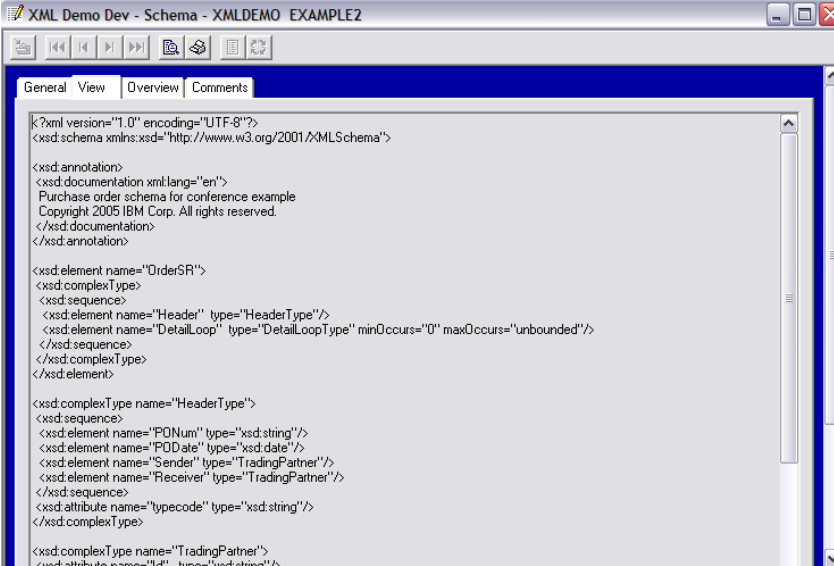
Document Split:

Header Element:

Message Element:

Opening the Schema and moving to the General tab, the optional fields look very similar to the DTD General Tab. With XML Schemas, the target namespace field is available. This is an optional field. The target namespace tells which namespace a schema describes. It is identified in the schema by the target Namespace attribute. When a schema is imported, the schema is scanned for a target Namespace attribute. If this attribute is found, the target namespace for the schema is set from the attribute value

Schema editor – View tab



```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">

  <xsd:annotation>
    <xsd:documentation xml:lang="en">
      Purchase order schema for conference example
      Copyright 2005 IBM Corp. All rights reserved.
    </xsd:documentation>
  </xsd:annotation>

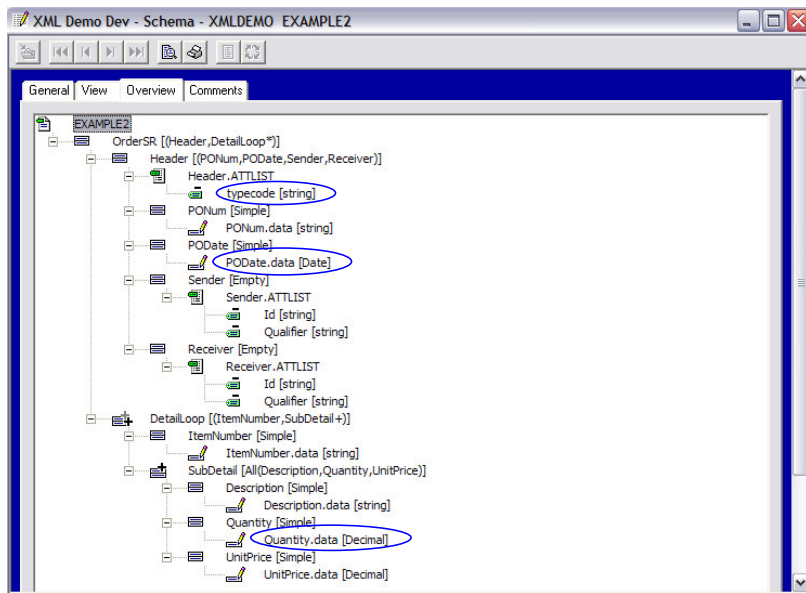
  <xsd:element name="OrderSR">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="Header" type="HeaderType"/>
        <xsd:element name="DetailLoop" type="DetailLoopType" minOccurs="0" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <xsd:complexType name="HeaderType">
    <xsd:sequence>
      <xsd:element name="PDNum" type="xsd:string"/>
      <xsd:element name="PDDate" type="xsd:date"/>
      <xsd:element name="Sender" type="TradingPartner"/>
      <xsd:element name="Receiver" type="TradingPartner"/>
    </xsd:sequence>
    <xsd:attribute name="typecode" type="xsd:string"/>
  </xsd:complexType>

  <xsd:complexType name="TradingPartner">
    <xsd:attribute name="ID" type="xsd:string"/>
  </xsd:complexType>
</xsd:schema>
```

This is a View of the Schema.

Schema editor – Overview tab



The Overview Tab shows the tree representation of the Schema definition.

Summary

- XML DTDs and Schemas can be imported using WDI Client
- WDI Client supplies administrative functions to define optional fields to be used for processing the XML document.



XML DTDs and Schemas can be imported using WDI Client. WDI Client supplies administrative functions to define optional fields to be used for processing the XML document.

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