



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Creating a Send/Receive Map



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This presentation will demonstrate how to create a Send and Receive Map.

Agenda

- Overview mapping objects
- Send Maps
- Receive Maps
- Common mapping functions
- Summary and references



The presentation will give an overview of the mapping objects, review Send and Receive mapping process, and cover some common mapping functions.

Creating a Send/Receive Map

- Send and Receive mapping process.
 - ▶ Load or Define the EDI Standard and message you are going to use.
 - EDI compound and simple elements, Segments, and messages.
 - ▶ Load or Define the application data layout (Data Format definition).
 - Define fields, structures, records, loops, and construct the message layout.
 - ▶ Identify the direction for the map.
 - Send Map is for EDI outbound data.
 - Receive Map is for EDI inbound data.



Before you can begin mapping, you must define the source and target document metadata. Send and Receive maps support 2 types of metadata Electronic Data Interchange (EDI) Standards and application data. EDI Standards metadata can be imported, modified, or created. Application data metadata can be imported from another WebSphere Data Interchange (WDI) system, imported using import COBOL copybook function, modified, or created.

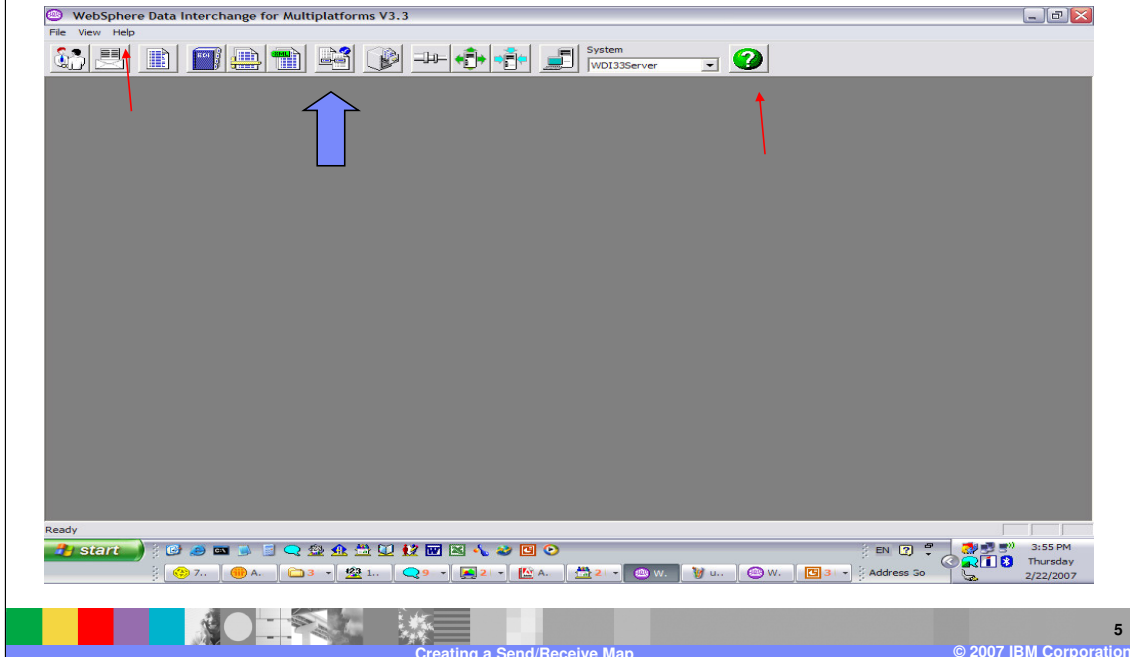
Creating a Send/Receive Map

- Send and Receive mapping process.
 - ▶ Create the Map.
 - Send Map Source document definition is application Data Format definition and Target document definition is EDI Standard definition.
 - Receive Map Source document definition is EDI Standard definition and Target document definition is application Data Format definition.



A send map contains a source document definition for application data and the target document definition is EDI. A receive map contains a source document definition for EDI and the target document definition is application data.

Creating a Send/Receive Map



The WebSphere Data Interchange (WDI) Client Mapping Functional Area. For general help you can click the question mark at the top, right or select Help->Contents.

Creating a Send/Receive Map

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

WDI33Server (Mapping) - Query: All

Map Name	Complete Required	Description	Lock	Updated Date and Time	Updated User ID	Map Base	Receive Maps
DTDATATYPE_TESTO	No	Test BN...	No	1/17/2007 9:05:57 AM	awinters	Target	
DTDATATYPE_TESTI	No	Test BN...	No	1/17/2007 9:05:59 AM	awinters	Source	
INVOIC93_TRAD	Yes	INVOIC...	No	1/25/2007 9:04:58 AM	awinters	Target	
MRTST_DFCV_DFCV	Yes	Multi Re...	No	2/20/2007 9:44:02 AM	awinters	Source	
MRTST_DFCV_DFCVU	Yes	Multi Re...	No	2/20/2007 9:44:04 AM	awinters	Source	
MRTST_DFRW_DFRW	Yes	Multi Re...	No	2/20/2007 9:44:06 AM	awinters	Source	
MRTST_DFRW_DFRWU	Yes	Multi Re...	No	2/20/2007 9:44:07 AM	awinters	Source	
POXML_SSR-EDI	No	POXML.S...	No	2/20/2007 11:11:18...	awinters	Source	
S-DT-ADF-TO-EDI	Yes	Source ...	No	1/26/2007 11:23:03...	awinters	Source	
S-DT-ADF-TO-NHL	No	Source ...	No	2/7/2007 12:51:27 PM	awinters	Source	
SPLIT_EXAMPLE	Yes	Dutch T...	No	2/22/2007 3:55:53 PM	awinters	Source	
T-DT-EDI-TO-ADF	No	Target ...	No	2/1/2007 4:54:24 PM	awinters	Target	

12 rows

start

Address Go

3:58 PM Thursday 2/22/2007

6

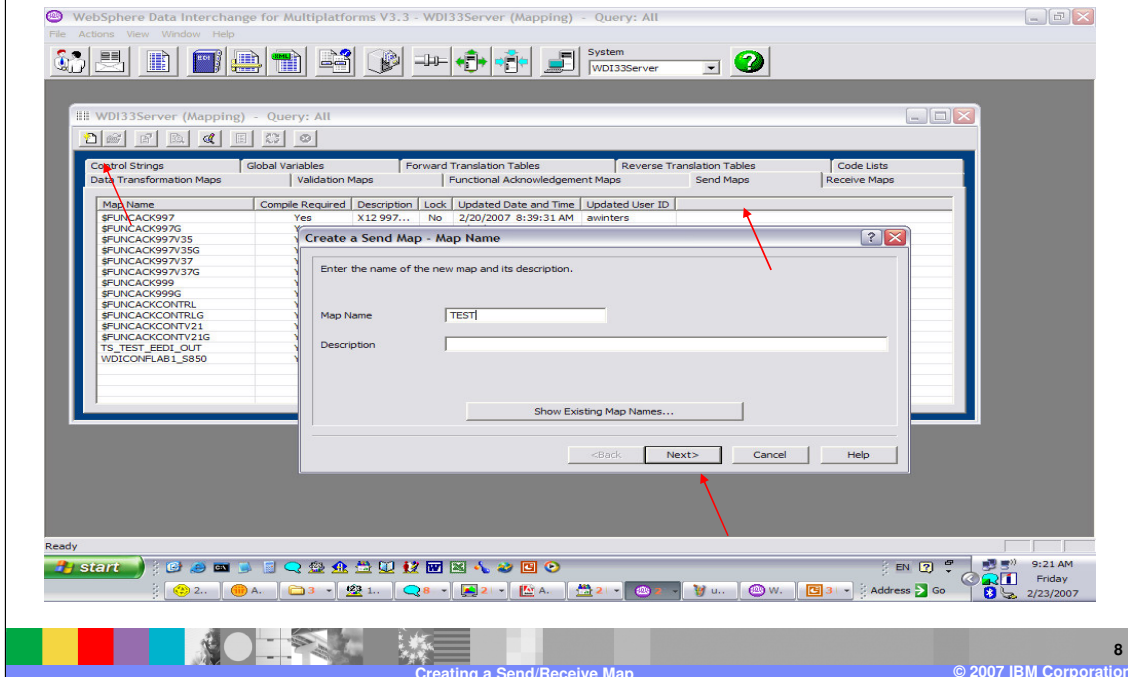
Creating a Send/Receive Map © 2007 IBM Corporation

The WDI Client Mapping Functional Area, Send Maps and Receive Maps tabs contains a list of the Send and Receive maps.

Section

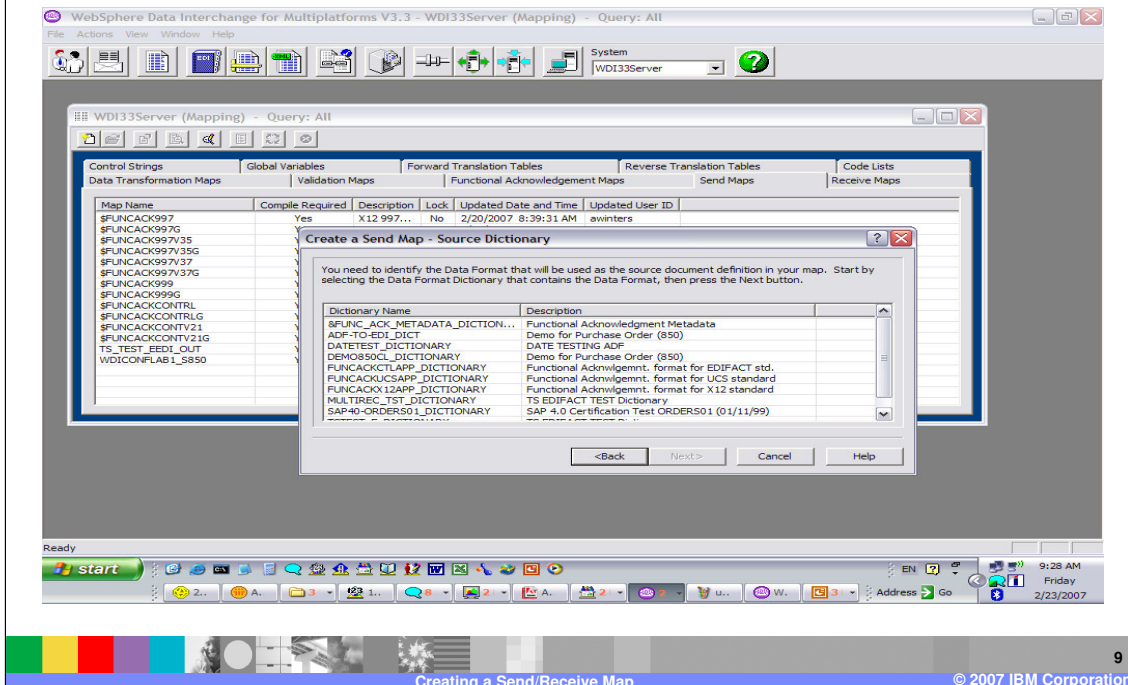
Send Maps

Creating a Send/Receive Map



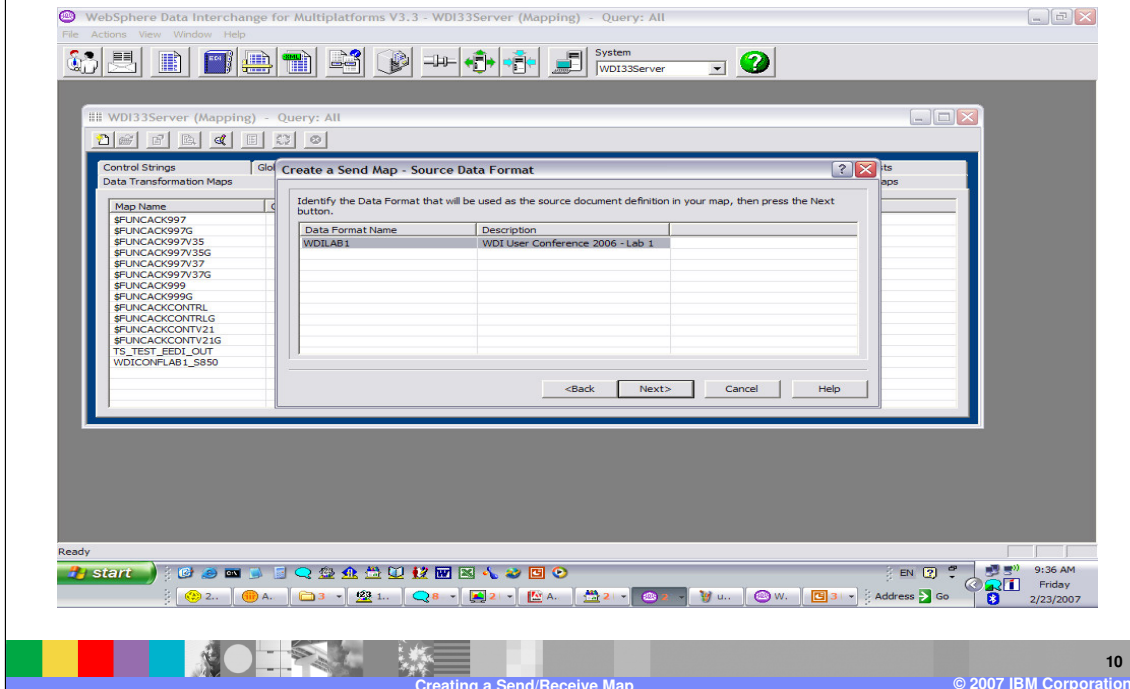
To add a Send map, navigate to the Send Maps tab, and use the New button from the list window tool bar. Enter the map name and optional description, and click Next.

Creating a Send/Receive Map



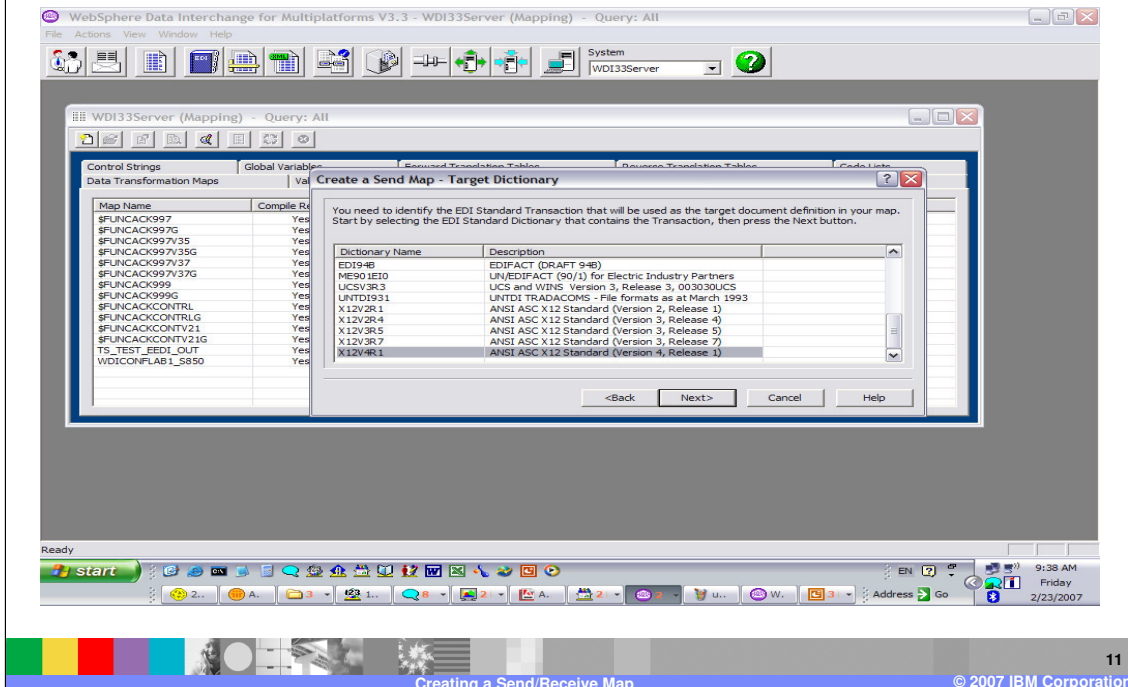
A list of application data metadata definitions is displayed. This selection is for the Source dictionary and document type. Select the Source dictionary and click on Next.

Creating a Send/Receive Map



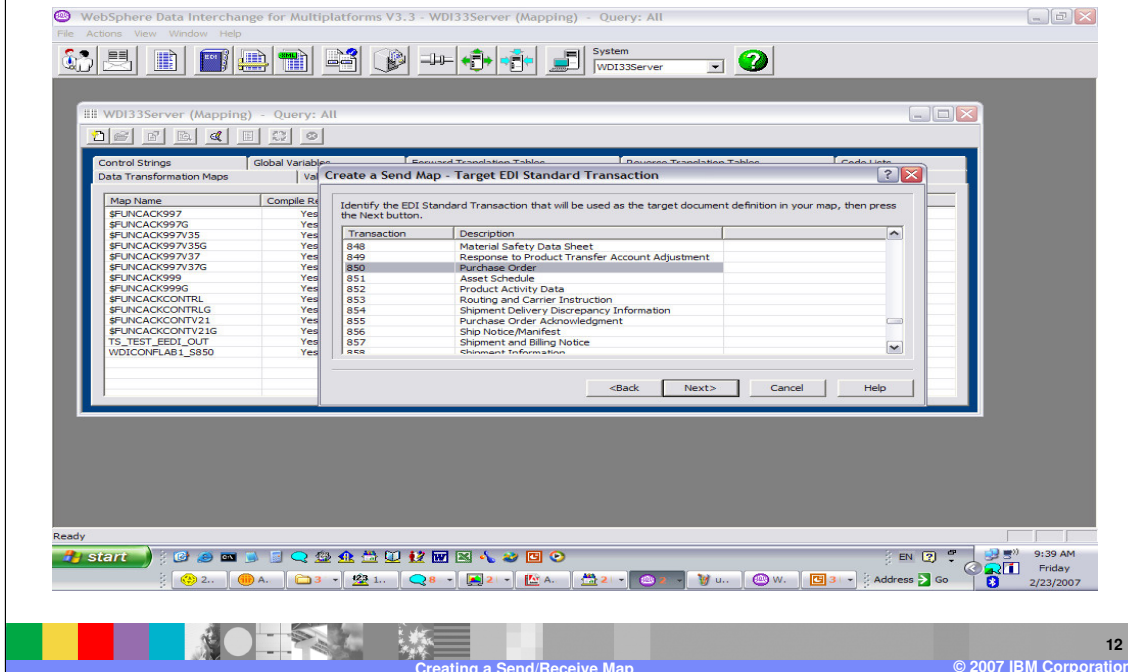
This selection is for the Source dictionary and document type. Select the Source document and click on Next.

Creating a Send/Receive Map



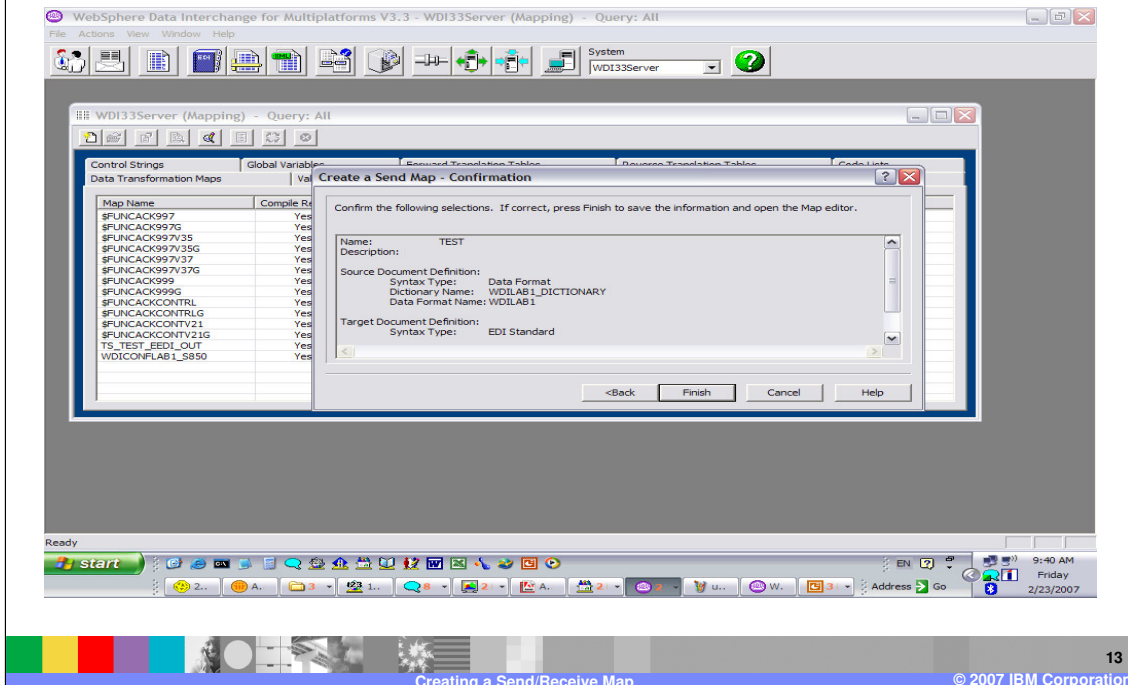
This selection is for the Target dictionary and document type. Select the Target dictionary and click on Next.

Creating a Send/Receive Map



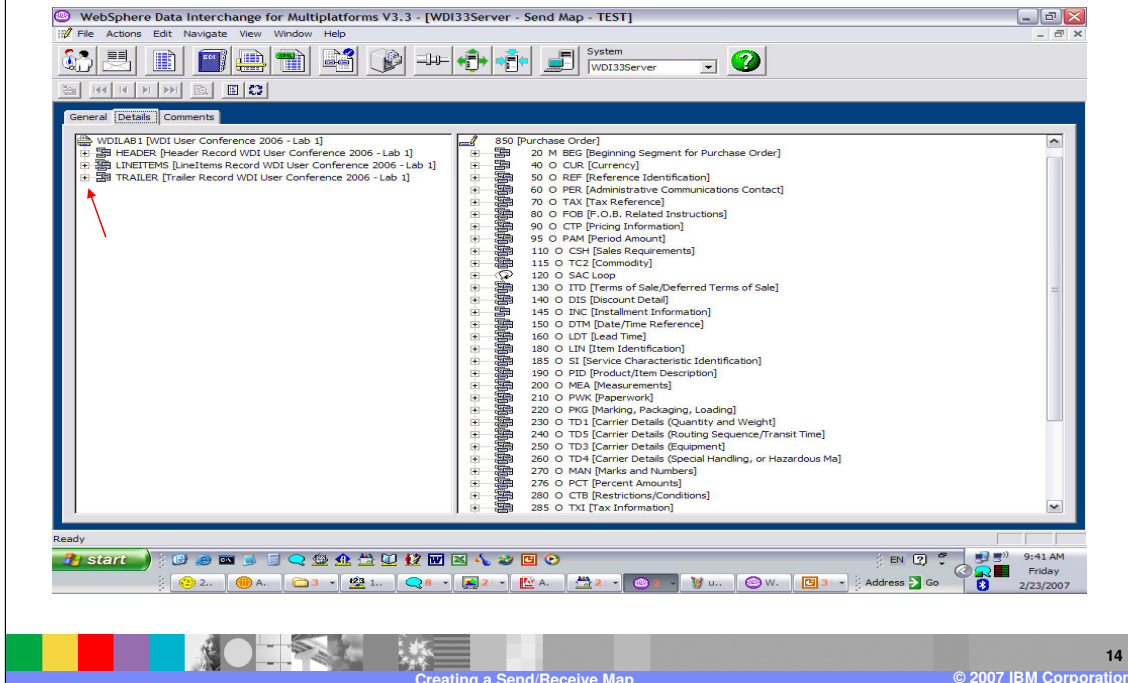
This selection is for the Target dictionary and document type. Select the Target document and click on Next.

Creating a Send/Receive Map



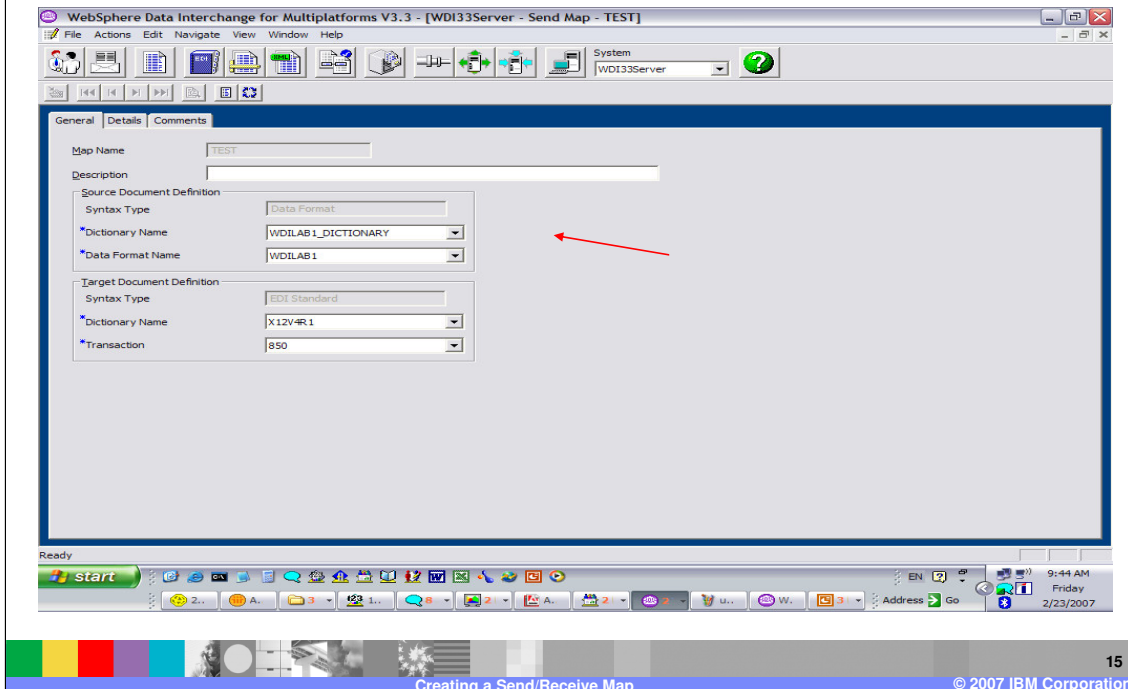
Confirm the Source and Target metadata definitions and click Finish.

Creating a Send/Receive Map



The mapping window displays with the Source document on the left and the Target document on the Right. Records, segments, and loops may be expanded by clicking on the plus sign or right click and select expand all.

Creating a Send/Receive Map



The General Tab shows the source and target metadata definitions. This may be modified which is useful for map creation and migration.

Creating a Send/Receive Map

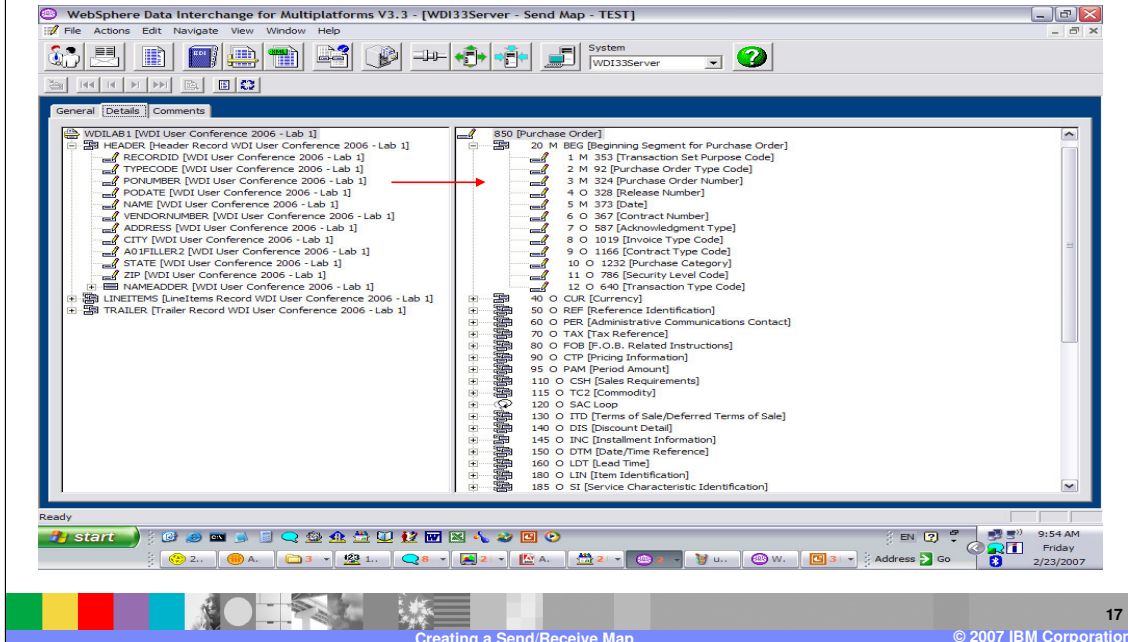
- Common Send/Receive mapping functions.
 - ▶ drag / drop – Map the association from the source compound or simple element to the target compound or simple element. Always from left mapping window pane to right mapping window pane.
 - ▶ literals – provide values, default values, and apply logic for the target simple element
 - ▶ date edits, code lists, and translate tables – apply date conversions, validation, and value conversions.
 - ▶ qualification – Multiple Occurrence, Occurrence, Value for target compound elements and element qualified pairs for target simple elements.



Some common Send Receive mapping functions include: drag/drop, supplying literal values not found in the data, conditional mapping, formatting and validating values, and loop qualification.

Creating a Send/Receive Map

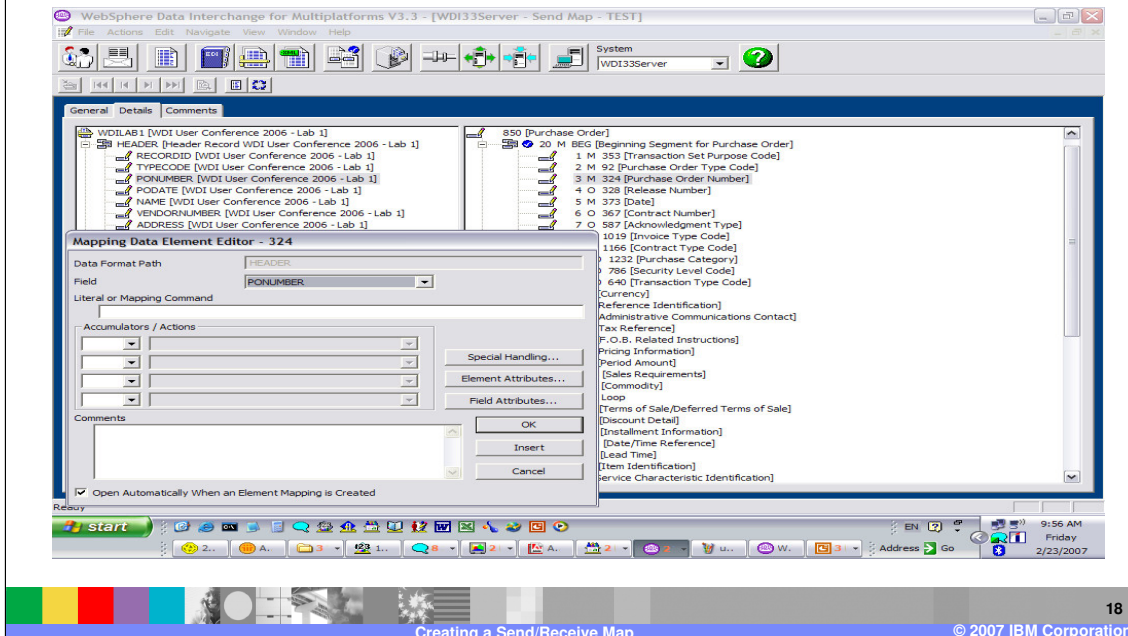
- drag / drop Send Map (left to right)



Drag and Drop is the most common mapping function. Select the element on the left you want to map and drag/drop it on the element on the right.

Creating a Send/Receive Map

- drag / drop Send Map (left to right)



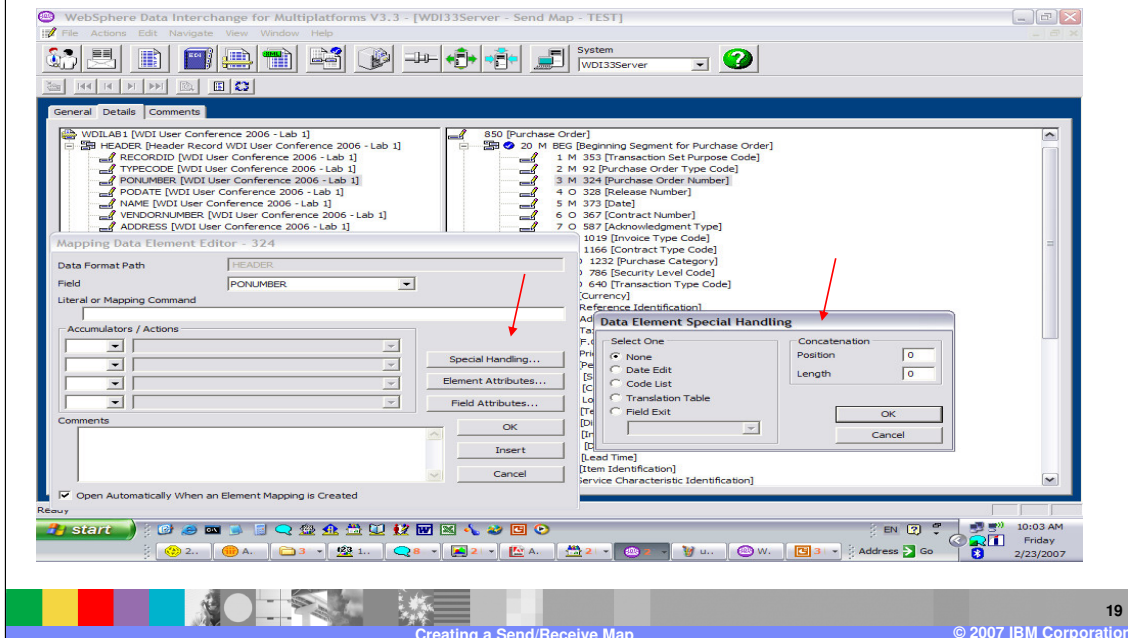
This dialogue allows you to enter literal values, logic, accumulators, and comments. The default is to always display this dialogue, but there is a button at the bottom to allow you to turn the default off. Turning this off can improve mapping time, if most of your mapping is a one to one relationship and you don't have special mapping requirements. You can get help for any field by moving to the field and pressing the F1 key.

The target element attributes and the source field attributes may also be displayed.

When the mapping for this element is complete press OK which will close this dialogue. If you have multiple mappings for this source and target element, you can use the Insert and this dialogue will remain to add multiple mapping commands.

Creating a Send/Receive Map

- drag / drop Send Map (left to right)

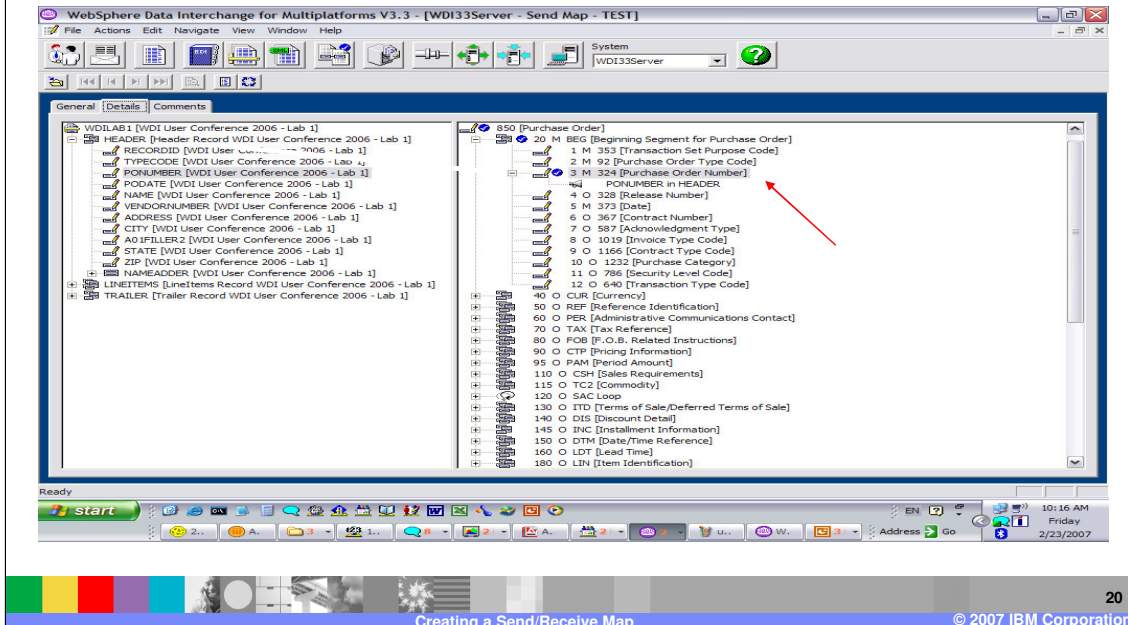


Special Handling allows you to select code list for validation, translation tables to translation an application value to an EDI value, specify user exist names to manipulate a value. The special handling functions may also be identified on the Literal or Mapping Command line.

There are circumstances where the target value is actually a combination of several source values. Mapping several source values to the same target will automatically concatenate the values in the order they are mapped. The Concatenation position and length of these values may be specified here to override the automatic concatenation.

Creating a Send/Receive Map

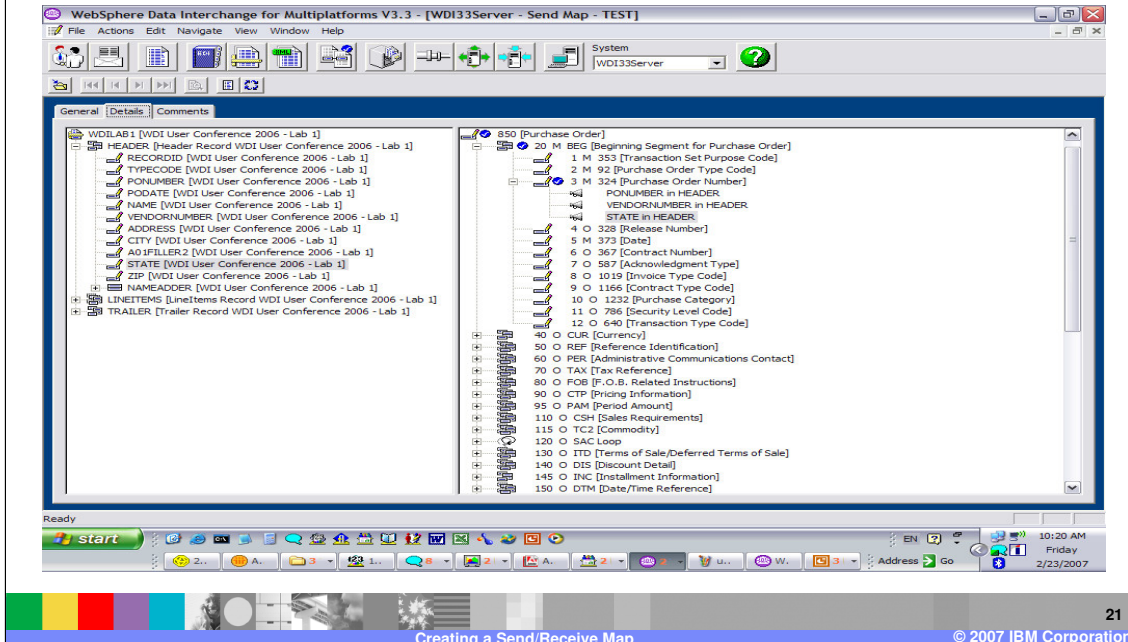
- drag / drop Send Map (left to right)



The results of the drag and drop action, the mapping command will display under the target element. Additional commands may be added by selecting another source element and using drag/drop or by double clicking the target element. You can also update any mapping under the target element by selecting the mapping and using double click.

Creating a Send/Receive Map

- drag / drop Send Map (left to right)



During the Send Translation processing, mapping commands are executed in the order they appear in the map. Commands may be moved and deleted. To delete a command select the command and press the Delete button on the keyboard. To move a command select the command and drag/drop the command to the new location. You may only move the command within the current target element mapping.

Creating a Send/Receive Map

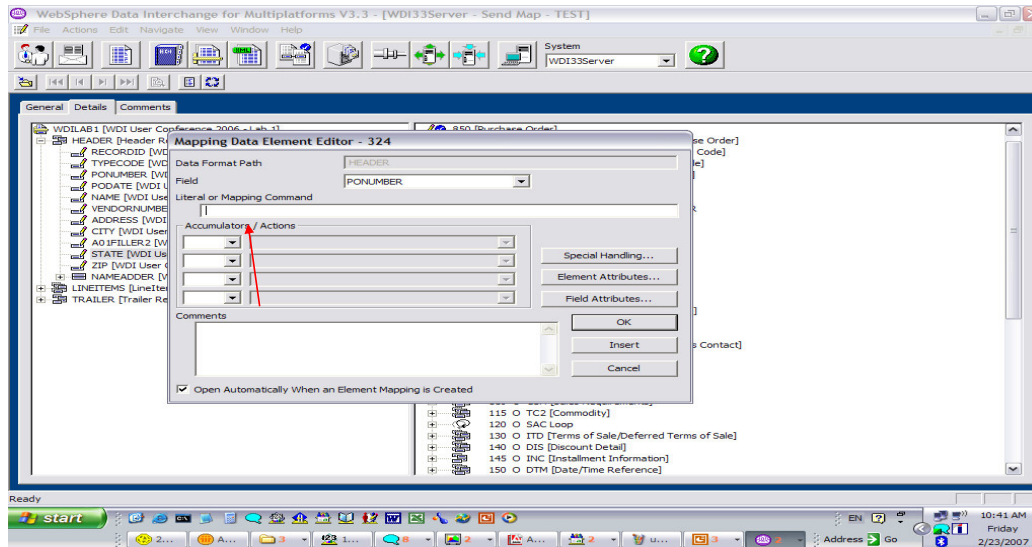
- Common Send/Receive mapping functions.
 - ✓ drag / drop – Map the association from the source compound or simple element to the target compound or simple element. Always from left mapping window pane to right mapping window pane.
 - ▶ literals – provide values, default values, and apply logic for the target simple element
 - ▶ date edits, code lists, and translate tables – apply date conversions, validation, and value conversions.
 - ▶ qualification – Multiple Occurrence, Occurrence, Value for target compound elements and element qualified pairs for target simple elements.



The Literal Command Line is used to provide values, default values, and apply logic for the target simple element.

Creating a Send/Receive Map

- Literals



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Creating a Send/Receive Map

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Mapping commands used in [Send Maps](#) and [Receive Maps](#) perform actions that are used to instruct the WebSphere Data Interchange Server that a specific action is to occur. The commands instruct the Server on how to move data from one element to another, how to manipulate data, when to issue user specified errors, how to perform conditional processing, etc... Most commands require parameters, [named variables](#), [special variables](#), [constants](#), and [expressions](#). Mapping commands in Send Maps and Receive Maps are most commonly called **literals** or **special literals** because they are entered in the "Literal" field on the [Mapping Data Element Editor](#). Literals sometimes refer to constants instead.

Creating a Send/Receive Map

- Literals

The following is a list of the mapping commands that are used in Send Maps and/or Receive Maps. These commands can be used in both map types unless otherwise noted. These commands are not used in [Data Transformation Maps](#), [Validation Maps](#), and [Functional Acknowledgement Maps](#).

&ACFIELD	&ASSERT	&DATE
&DEFERRED	&E	&ERR
&FORCE	&FORMAT	&IF
&IFDATA	&IFNODATA	&IFNOVAR
&LOOPBREAK	&LOOPCHECK	&LSAVE
&LSET	&LSID	&SAMEAS
&SAVE	&SET	&THANDLE
&TIME	&TPID	&TPNICKN
&USE	&ZEROSIG	

See also [literal keywords for the HL Segment](#).

Refer to [working with literals and mapping commands](#) for additional information.

Some mapping commands and literals can specify a data value. You can use any of the

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This is the Client Help for the Literal or Command line. It contains a list of mapping commands that may be used on the literal or command line.

Creating a Send/Receive Map

- Common Send/Receive mapping functions.
 - ✓ drag / drop – Map the association from the source compound or simple element to the target compound or simple element. Always from left mapping window pane to right mapping window pane.
 - ✓ literals – provide values, default values, and apply logic for the target simple element
 - ▶ date edits, code lists, and translate tables – apply date conversions, validation, and value conversions.
 - ▶ qualification – Multiple Occurrence, Occurrence, Value for target compound elements and element qualified pairs for target simple elements.



This presentation is a demonstration on creating Send and Receive Maps. The other common mapping functions are considered Advanced techniques and are reviewed in the Advanced mapping presentation.

Section

Receive Maps

Creating a Send/Receive Map

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

Control Strings | Global Variables | Forward Translation Tables | Reverse Translation Tables | Code Lists
Data Transformation Maps | Validation Maps | Functional Acknowledgement Maps | Send Maps | Receive Maps

Map Name	Compile Required	Description	Lock	Updated Date and Time	Update
WDI.CONFLAB1_R850	Yes	Rcv Map X12V4R1(850) - WDI Co...	Yes - awinters	2/23/2007 9:34:25 AM	awinte

Create a Receive Map - Map Name

Enter the name of the new map and its description.

Map Name:

Description:

Show Existing Map Names...

<Back Next> Cancel Help

Ready

start | 4:28 - AT&T Network ... | Map Development | WebSphere Data Int... | Microsoft PowerPoint ... | EN | Address Go | 11:26 AM Friday 2/23/2007

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To add a Receive map, navigate to the Receive Maps tab, and use the New button from the list window tool bar. Enter the map name and optional description, and click Next.

Creating a Send/Receive Map

The screenshot shows the WebSphere Data Interchange for Multiplatforms V3.3 - WDI33Server (Mapping) - Query: All interface. The main window displays a table of maps, and a dialog box titled "Create a Receive Map - Source Dictionary" is open, showing a list of EDI Standard metadata definitions.

Map Name	Compile Required	Description	Lock	Updated Date and Time	Update
WDICONFLAB1_R850	Yes	Rcv Map X12V4R1(850) - WDI Co...	Yes - awinters	2/23/2007 9:34:26 AM	awinte

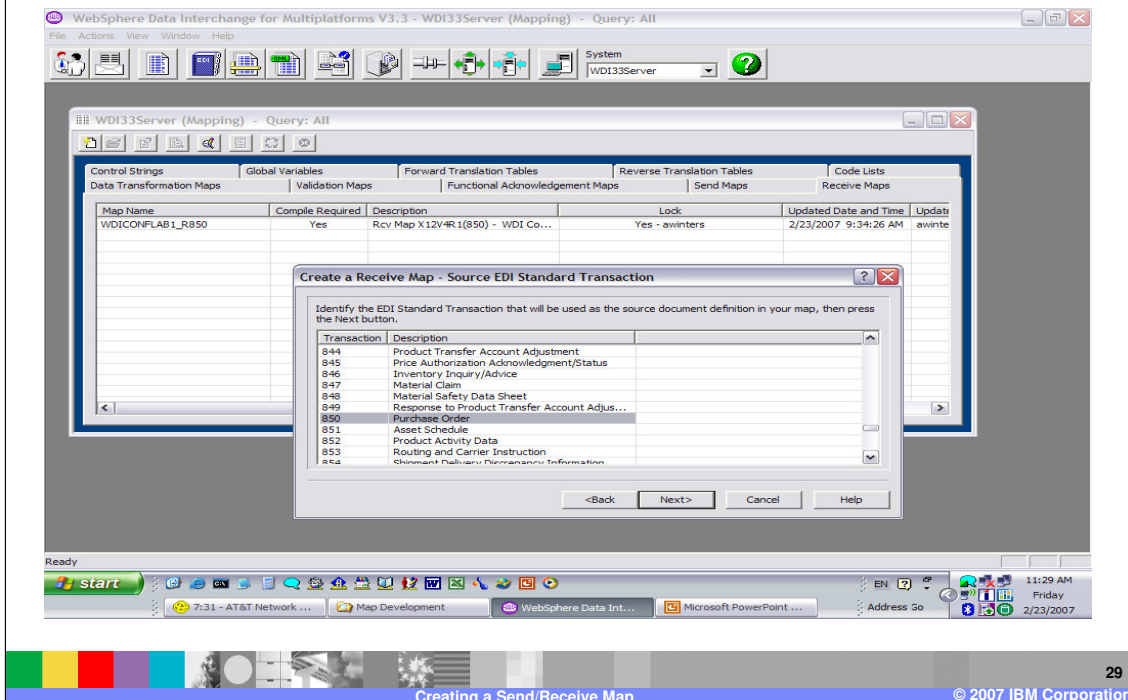
The dialog box "Create a Receive Map - Source Dictionary" contains the following text: "You need to identify the EDI Standard Transaction that will be used as the source document definition in your map. Start by selecting the EDI Standard Dictionary that contains the Transaction, then press the Next button."

Dictionary Name	Description
ED194B	EDIFACT (DRAFT 94B)
ME901E10	UNEDIFACT (90/1) for Electric Ind...
UCSV3R3	UCS and WINS Version 3, Release ...
UNTD1931	UNTD1 TRADACOMS - File formats ...
X12V2R1	ANSI ASC X12 Standard (Version 2,...
X12V2R4	ANSI ASC X12 Standard (Version 3,...
X12V3R5	ANSI ASC X12 Standard (Version 3,...
X12V3R7	ANSI ASC X12 Standard (Version 3,...
X12V4R1	ANSI ASC X12 Standard (Version 4,...

The dialog box also includes buttons for "<Back", "Next>", "Cancel", and "Help".

A list of EDI Standard metadata definitions is displayed. This selection is for the Source dictionary and document type. Select the Source dictionary and click on Next.

Creating a Send/Receive Map



This selection is for the Source dictionary and document type. Select the Source document and click on Next.

Creating a Send/Receive Map

The screenshot shows the WebSphere Data Interchange for Multiplatforms V3.3 - WDI33Server (Mapping) - Query: All interface. The 'Send Maps' tab is selected, showing a table of maps. A 'Create a Receive Map - Target Dictionary' dialog box is open, displaying a list of dictionaries for selection.

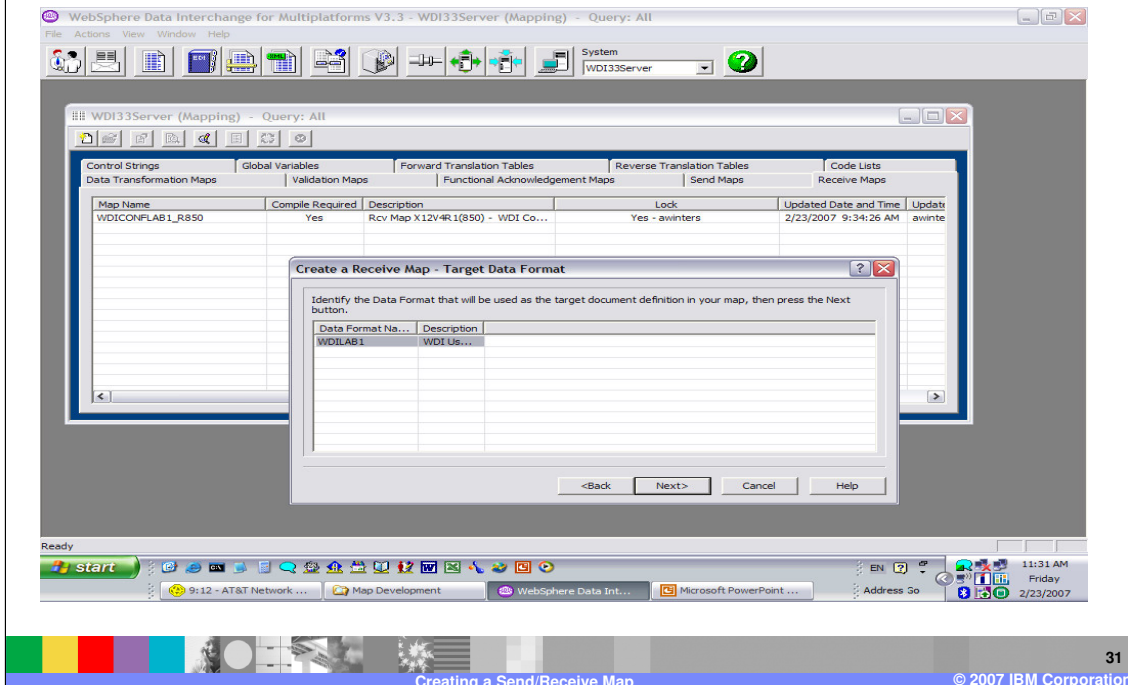
Map Name	Compile Required	Description	Lock	Updated Date and Time	Update
WDICONFLAB1_R850	Yes	Rcv Map X12V4R1(850) - WDI Co...	Yes - awinters	2/23/2007 9:34:26 AM	awinte

The 'Create a Receive Map - Target Dictionary' dialog box contains the following list of dictionaries:

Dictionary Name	Description
DATETEST_DICTIONARY	DATE TESTING ADF
DEMOSSOQ_DICTIONARY	Demo for Purchase Order (850)
FUNCACKCTLAPP_DICTIONA...	Functional Ackwlgemnt. format for EDIFACT std.
FUNCACKUCSAPP_DICTION...	Functional Ackwlgemnt. format for UCS standard
FUNCACKX12APP_DICTIONA...	Functional Ackwlgemnt. format for X12 standard
MULTIREC_TST_DICTIONARY	TS EDIFACT TEST Dictionary
SAP40-ORDERS01_DICTION...	SAP 4.0 Certification Test ORDERS01 (01/11/99)
TSTEST_E_DICTIONARY	TS EDIFACT TEST Dictionary
WDILAB1_DICTIONARY	WDI User Conference 2006 - Lab 1

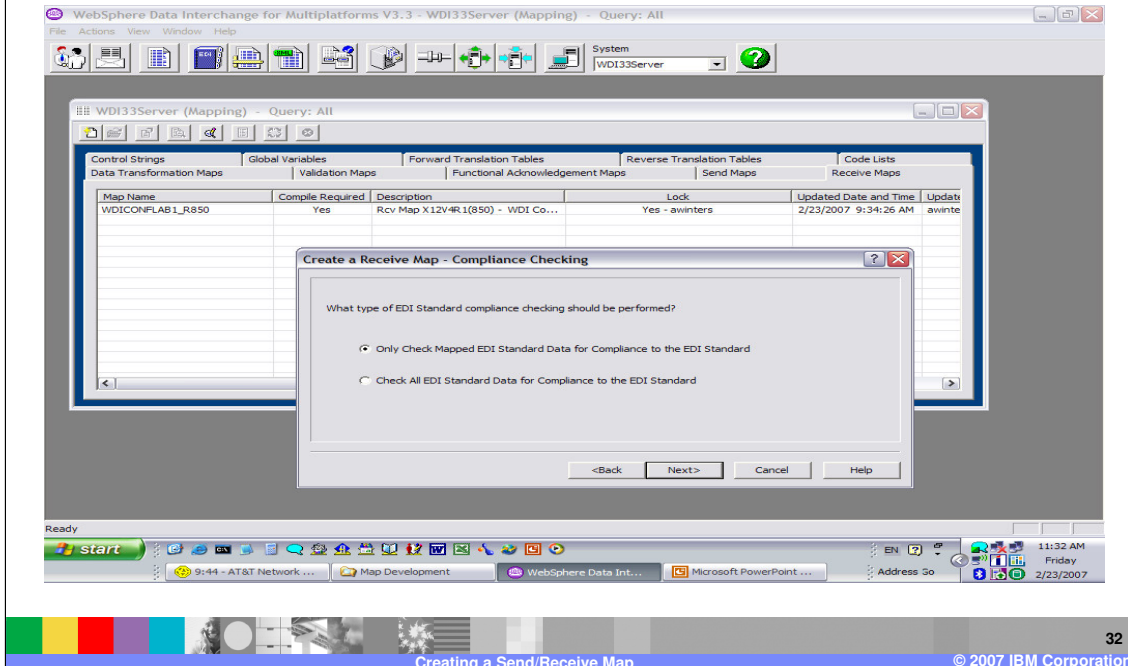
This selection is for the Target dictionary and document type. Select the Target dictionary and click on Next.

Creating a Send/Receive Map



This selection is for the Target dictionary and document type. Select the Target document and click on Next.

Creating a Send/Receive Map



The WDI EDI Standard compliance checking for inbound processing by default only validates EDI segments and elements that are mapped. You can override this default and choose to compliance check all the EDI segments and elements that are present in the source input.

Creating a Send/Receive Map

The screenshot displays the IBM WebSphere Data Interchange for Multiplatforms V3.3 interface. The main window shows a table of Data Transformation Maps. A dialog box titled "Create a Receive Map - Confirmation" is open, prompting the user to confirm the following selections:

Map Name	Compile Required	Description	Lock	Updated Date and Time	Update
WDICONFLAB1_R850	Yes	Rcv Map X12V4R1(850) - WDI Co...	Yes - awinters	2/23/2007 9:34:26 AM	awinte

The confirmation dialog box contains the following information:

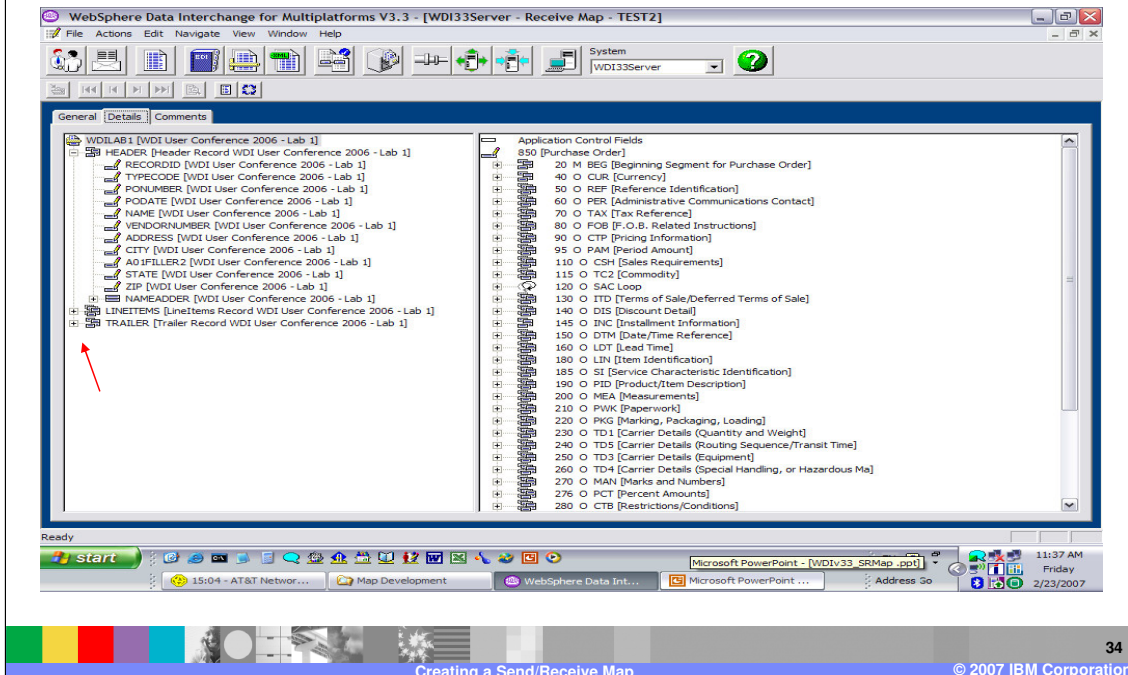
- Name: TEST
- Description:
- Source Document Definition:
 - Syntax Type: EDI Standard
 - Dictionary Name: X12V4R1
 - Transaction: 850
- Target Document Definition:
 - Syntax Type: Data Format

Buttons at the bottom of the dialog include <Back, Finish, Cancel, and Help.

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Creating a Send/Receive Map © 2007 IBM Corporation

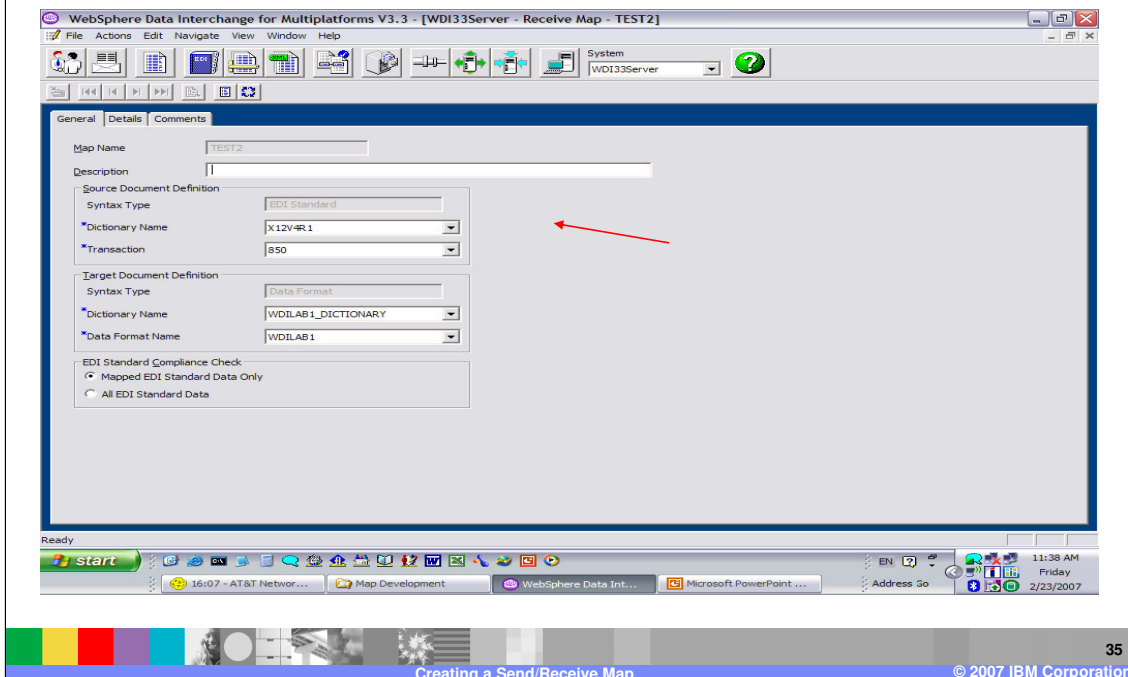
Confirm the Source and Target metadata definitions and click Finish.

Creating a Send/Receive Map



The mapping window displays with the Target document on the left and the Source document on the Right. Records, segments, and loops may be expanded by clicking on the plus sign or right click and select expand all.

Creating a Send/Receive Map



The General Tab shows the source and target metadata definitions. This may be modified which is useful for map creation and migration.

Creating a Send/Receive Map

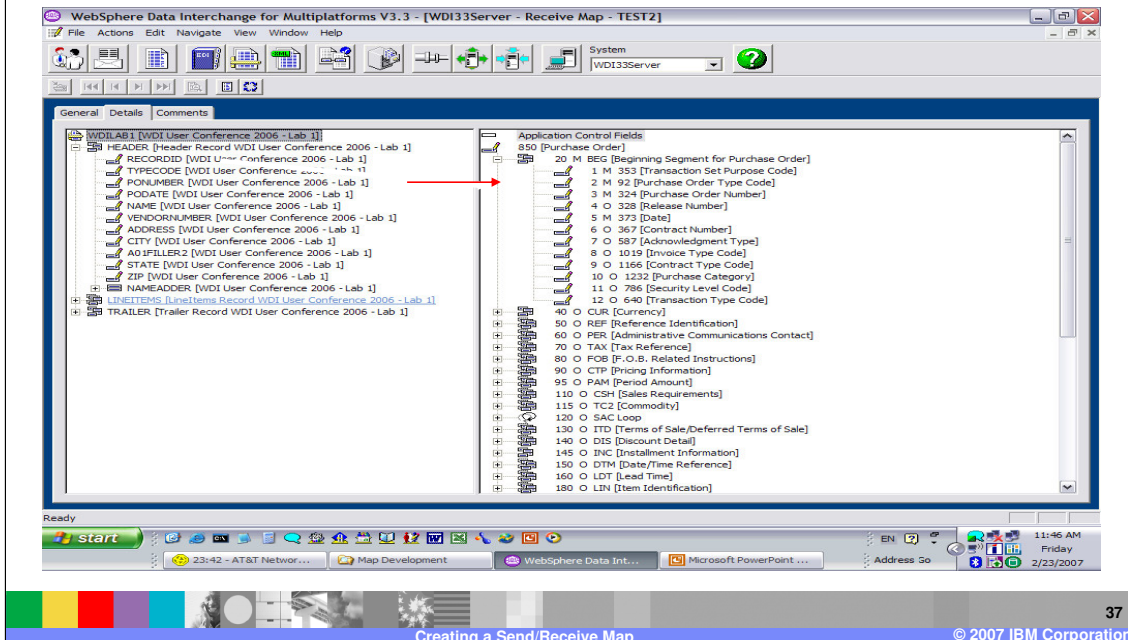
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Some common Send Receive mapping functions include: drag/drop, supplying literal values not found in the data, conditional mapping, formatting and validating values, and loop qualification.

Creating a Send/Receive Map

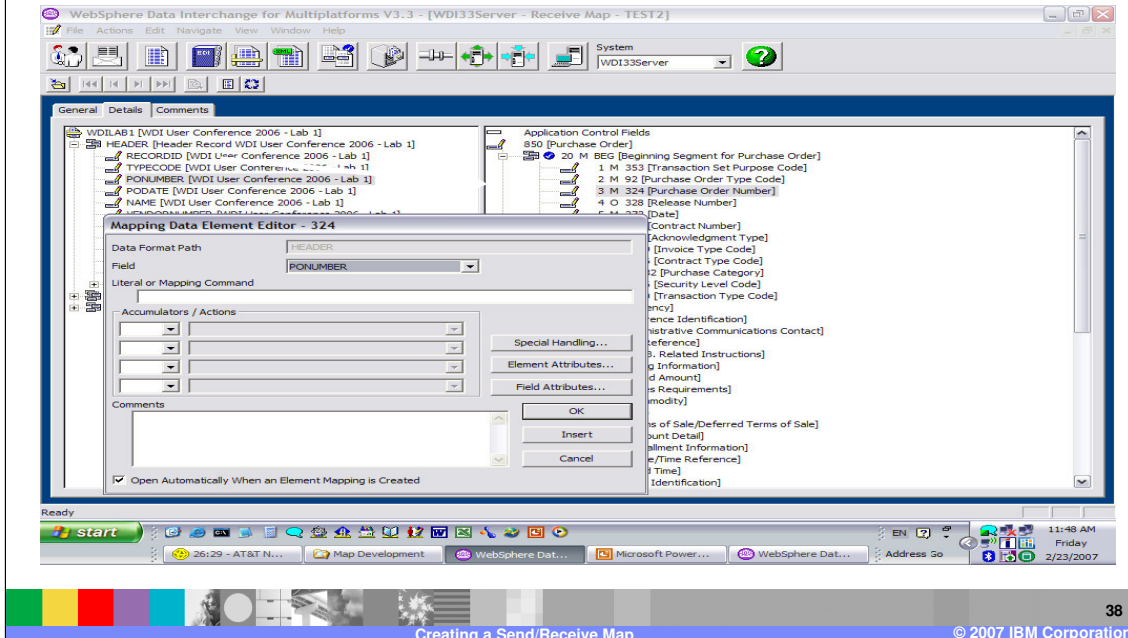
- drag / drop Receive Map (left to right)



Drag and Drop is the most common mapping function. Select the element on the left you want to map and drag/drop it on the element on the right.

Creating a Send/Receive Map

- drag / drop Receive Map (left to right)



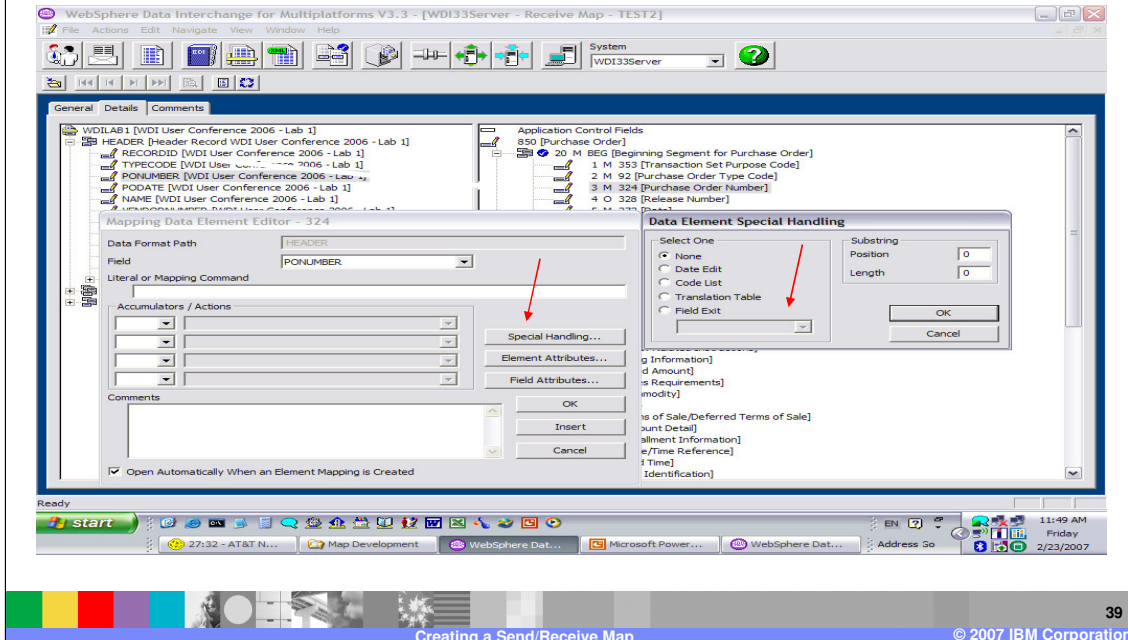
This dialogue allows you to enter literal values, logic, accumulators, and comments. The default is to always display this dialogue, but there is a button at the bottom to allow you to turn the default off. Turning this off can improve mapping time, if most of your mapping is a one to one relationship and you don't have special mapping requirements. You can get help for any field by moving to the field and pressing the F1 key.

The target element attributes and the source field attributes may also be displayed.

When the mapping for this element is complete press OK which will close this dialogue. If you have multiple mappings for this source and target element, you can use the Insert and this dialogue will remain to add multiple mapping commands.

Creating a Send/Receive Map

- drag / drop Send Map (left to right)

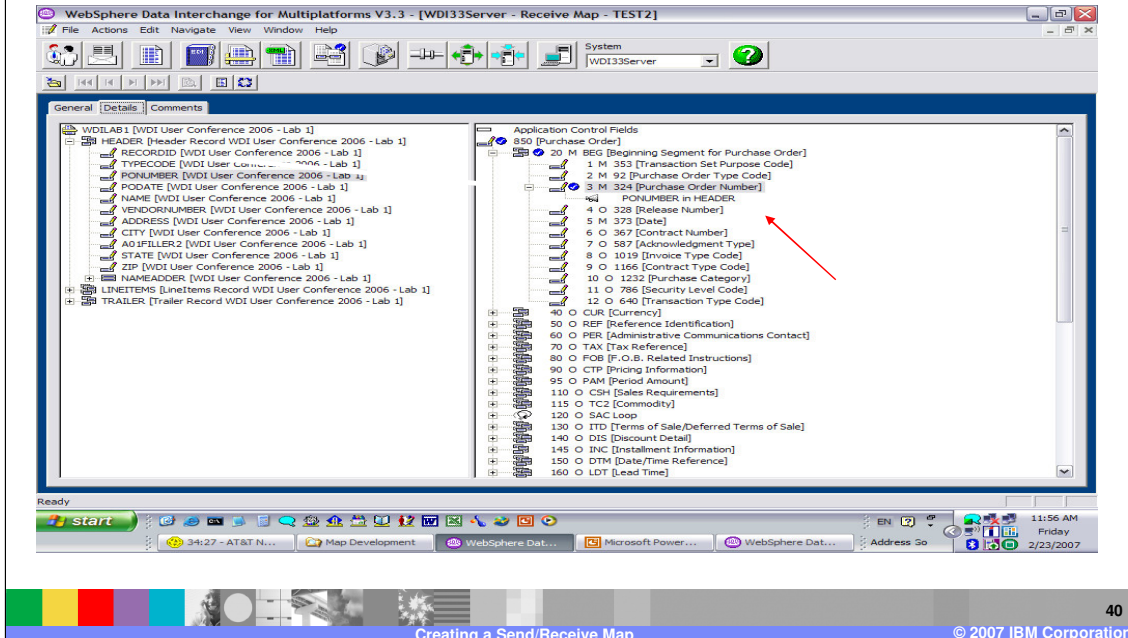


Special Handling allows you to select code list for validation, translation tables to translation an EDI value to your application value, specify user exist names to manipulate a value. The special handling functions may also be identified on the Literal or Mapping Command line.

There are circumstances where several target values are populated from a single source value. The Substring position and length of the source value may be specified here to populate the target values.

Creating a Send/Receive Map

- drag / drop Send Map (left to right)



The results of the drag and drop action, the mapping command will display under the source element. Additional commands may be added by selecting another source element and using drag/drop or by double clicking the target element. You can also update any mapping under the target element by selecting the mapping and using double click.

Creating a Send/Receive Map

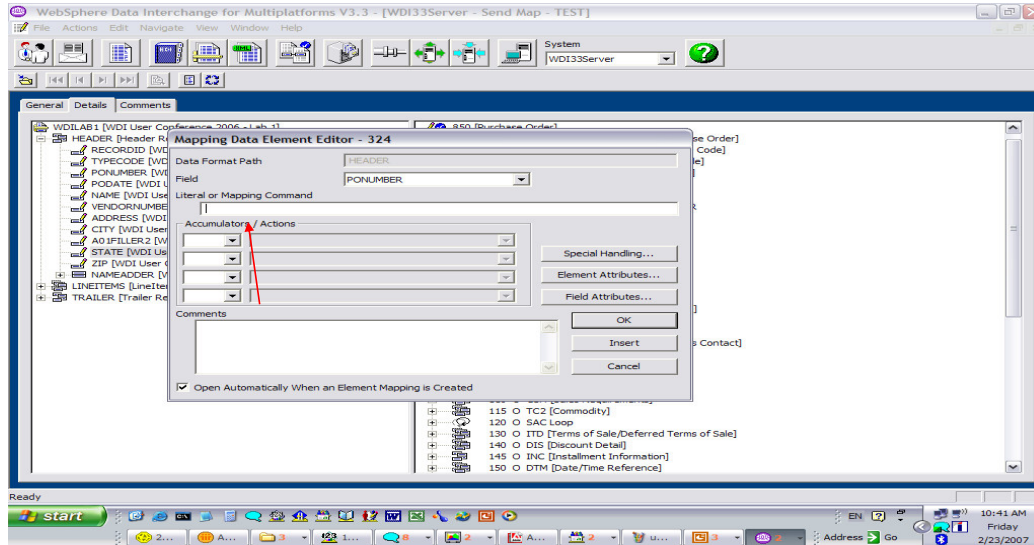
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The Literal Command Line is used to provide values, default values, and apply logic for the target simple element.

Creating a Send/Receive Map

- Literals



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Creating a Send/Receive Map

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The Literal or Command line functions the same for Receive maps as with Send maps. Some mapping commands available are only valid for Receive. Client Help identifies the valid map types for each command.

Creating a Send/Receive Map

- Common Send/Receive mapping functions.
 - ✓ drag / drop – Map the association from the source compound or simple element to the target compound or simple element. Always from left mapping window pane to right mapping window pane.
 - ✓ literals – provide values, default values, and apply logic for the target simple element
 - ▶ date edits, code lists, and translate tables – apply date conversions, validation, and value conversions.
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This presentation is a demonstration on creating Send and Receive Maps. The other common mapping functions are considered Advanced techniques and are reviewed in the Advanced mapping presentation.

Reference

- More information can be found in the WDI V3.3 Mapping Guide.



More information can be found in the WebSphere Data Interchange Version 3.3 Mapping Guide.

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