

# PowerExchange IMS Data Map Creation

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# Abstract

PowerExchange requires IMS data maps for bulk data movement and change data capture (CDC) from IMS sources on z/OS. This article describes how to create an IMS data map that uses the DL/I access method in the PowerExchange Navigator client on Windows.

# **Supported Versions**

• PowerExchange 10.0 or later

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# **Overview**

For nonrelational sources, such as IMS databases, you must create data maps to define the sources for bulk data movement operations and to provide metadata for defining capture registrations and extraction maps for CDC. You create data maps in the PowerExchange Navigator client on Windows.

This article describes how to create a data map that uses the DL/1 BATCH access method to access an IMS source database. This method allows you to use DL/I or BMP access to the IMS database. Both access types require you to configure a netport job on the z/OS system.

**Note:** After you define the IMS data map, you can override the access method later in the PowerCenter session properties for the IMS source or when configuring a database row test.

When you create an IMS data map, you import a DBD to define the IMS segments and their parent-child relationships. You then import a COBOL or PL/I copybook for each segment to describe the physical layout of the data in the segment.

You can use this article to create multiple-segment data maps. However, this article does not cover creating multiplerecord data maps for IMS unload data sets

# **Preparation**

Before you begin data map creation, perform the following tasks:

• Install and configure PowerExchange on the z/OS LPAR where the IMS database exists. For information about PowerExchange installation, see the PowerExchange Installation and Upgrade Guide.

- Install and configure the PowerExchange Navigator on a Windows system.
- In the DBMOVER member on the z/OS system where the PowerExchange Listener runs, configure the IMS NETPORT statement and associated LISTENER statement. For example:

```
LISTENER= (node1, TCPIP, 15698)
NETPORT= (node1, 15698,,, "HGHARI1.PWX.V960.RUNLIB(IMSJCL)", IMSSAMU)
```

The NETPORT statement is required to use DL/I or BMP with a netport job to access an IMS database for loading bulk data to a target. Multiple NETPORT statements can be configured to pass different PSB names.

• Configure a NODE statement in the dbmover.cfg file on the local PowerExchange Navigator system that points to the port in the NETPORT statement in the DBMOVER member on the z/OS system. For example:

```
NODE=(HGIMS960,TCPIP,10.33.40.42,15698)
```

- To reduce the number of locking conflicts, set PROCOPT to read-only for the PCB for the IMS database.
- Gather the following information that is required to define a data map for an IMS source:
  - The IMS SSID
  - The IMS database name and database data set name
  - The database description (DBD) data set name and location
  - The PCB number for each database in the PSB that is specified in the NETPORT statement

Tip: To locate the DBD and copybooks, contact an IMS DBA or application data SME for assistance.

 If you plan to perform INSERTs or UPDATEs on an IMS segment, ensure that the data map represents the complete segment length as defined in the IMS DBD. Otherwise, an INSERT or UPDATE to the segment might write nonblank data to the end of the segment not defined as FILLER. To avoid this issue, you can add a FILLER definition to the COPYLIB before you import it to PowerExchange.

Also, before you perform a database row test on the new data map or run a PowerCenter session with a source definition based on the data map, ensure that you complete the following configuration tasks:

- Modify the IMSJCL member for the netport job in the RUNLIB library based on the requirements of your site. The default JOB name on the JOBCARD, PWX%N5, produces a job name of PWX00001, PWX00002, and so on. The ending number increases by 1 each time the JCL is executed in the current instance of the PowerExchange Listener. If the Listener is stopped and started, the count is reset to 1, producing a job name of PWX00001.
- Modify an IMSDATA member to include a DD statement for each IMS database. Use the following JCL.

```
//* INSERT IMS DATABASE FILES IN THIS MEMBER
//IMSDEMO DD DSN=&HLQVS..IMSDEMO.DB,DISP=SHR
```

# About the DBD and Copybooks

To create an IMS data map, you need a database description (DBD) file and a copybook for each segment in the IMS database.

The DBD file defines the database segments and describes the parent-child structure of the segments. The DBD file usually contains the key structure of the segments and the fully concatenated key (CCK) of each segment. During the DBD import process, PowerExchange maps the imported IMS segments and fields to tables and columns to create a relational view of source data that PowerExchange and PowerCenter can use.

The following image shows an example DBD:

■↓ C:\Informatica\PowerExchan	ge9.6.0\imsdemo\imssamp.dbd	
Records		
* SYNCHRONOUS CAPTUR	E	
DBD NAME=1	MSSAMDB,ACCESS=(HIDAM,USAM)	
DSG001 DATASET DD1=	IMSSAMDB,DEVICE=3380,SIZE=(4096),SCAN=3,	х
FRSPC=	(5,10)	
* ROOT		1000
SEGM NAME=D	TLSACC,BYTES=80,PTR=(TB),	х
PARENT	- = Ø	
FIELD NAME=(	KEYACCT,SEQ,U),BYTES=10,START=1,TYPE=C	
LCHILD NAME=	(INDEX,IMSSAMIX),PTR=INDX	
* CHILD1		
SEGM NAME=D	TLSADD,BYTES=80,PARENT=DTLSACC	
FIELD NAME=(	ADDKEY,SEQ,U),BYTES=10,START=1,TYPE=C	
* CHILD2		
SEGM NAME=D	TLSTRN,BYTES=80,PARENT=DTLSACC	
FIELD NAME=(	TRNKEY,SEQ,U),BYTES=10,START=1,TYPE=C	
DBDGEN		
FINISH		
END		
•	III /	Þ

After you import a DBD, you need to import a copybook into each segment in the data map to overlay the segment with its COPYLIB. This action redefines the data map while maintaining the hierarchical metadata for the database.

A copybook for a segment contains the structure of the key data and non-key data to describe the physical layout of the data. For an IMS source, you can use a COBOL or PL/I copybook. This article uses a COBOL copybook.

|--|

📄 imssam	p.cob - Notepad	
File Edit	Format View Help	
000100* 000200* 000102*	IMSSAMCP	00010000 00020000 00020101
000102 000104* 000106* 000107* 000104* 000104* 000200* 000200* 000400* 000500* 000600*	BE SURE TO UPDATE THE FIELD PROPERTIES FOR ACC-ID TO FILTER ON THE VALUE OF EACH SEGMENT 10, 20 AND 30. IF NOT YOUR ROW TEST DATA WILL BE INCORRECT. DTLSACC COBOL COPYBOOK ACCOUNT MASTER ACCT-ID = 10 SEGID=DTLSACC KEYID=KEYACCT	00020201 00020301 00020401 00020501 00020501 00021000 00030000 00040000 00050000 00060000 =
000800* 000900* 001000 001100 001200 001300 001400 001500 001600 001700 001800 001900 002000*	NETIDER TACK TO SEGLN=80         01       MASTER-REC.         05       MSTR-KEY.         10       ACCOUNT       PIC 9(6).         10       ACCT-ID       PIC X(02).         10       ACCT-SEQ       PIC X(02).         05       ACCT-TYPE       PIC X(10).         05       ACCT-FIRST-NAME       PIC X(15).         05       BALANCE       PIC 9(6)V99.         05       FILLER       PIC X(22).	00080000 00090000 00110000 00120000 00130000 00140000 00150000 00160000 00170000 00180000 00190000
002100* 002200* 002300* 002500* 002500* 002500* 002500* 002900 003000 003100 003200 003300	DTLSADD COBOL COPYBOOK ADDRESS MASTER ADDR-ID = 20 SEGID=DTLSADD KEYID=ADDR-KEY SEGLN=80 01 ADDRESS-REC. 05 ADDR-KEY. 10 ADDR-ACCOUNT PIC 9(6). 10 ADDR-ID PIC X(02). 10 ADDR-SEQ PIC 9(2).	00210000 00230000 00230000 00240000 00250000 00250000 00260000 00280000 00290000 00310000 00310000 00330000

Informatica recommends that you download the DBD file and copybooks to the Windows system where the PowerExchange Navigator runs before you create a data map. You can then view the files locally and make any necessary modifications without changing the files on the z/OS system. Alternatively, when you create a data map, you can select an option to read the DBD and copybooks from the remote z/OS system and create local copies.

To prepare a COBOL copybook for data map creation use, contact a person at your site who is familiar with the IMS data and how the IMS data map will be used. Ask that person to inspect the data structure defined in each COBOL copybook. Use the following guidelines for this process:

- Download the copybook from the z/OS system to the PowerExchange Navigator system, or copy the copybook to a different PDS or member.
- Verify that each record in the copybook begins with a 01-level statement.
- Merge all of the record definitions for each IMS segment into a single copybook.
- Identify potential problem areas:
  - Verify that duplicate column names do not occur.
  - If the copybook contains OCCURS...DEPENDING ON clauses, ensure that each DEPENDING ON clause specifies a valid variable name.
  - Identify fields that contain filter or record selection values for identifying specific segments or records. This information is critical to identifying segments in multiple segment databases.

- If you have copybooks with REDEFINES clauses, identify which version of the data to use for the data map. If you have multiple REDEFINES clauses, comment out any that you do not want to use. For each single REDEFINES clause, determine if you want to use the redefined field or group or the original field or group. For example, if a REDEFINES clause redefines a field with a different datatype, determine which datatype to use in the data map.
- Add comments for any changes that you make in the copybook.
- Save the modified copybooks in a shared LAN directory or in a separate PDS for future reference.

# **Data Map Creation Tasks**

To create an IMS data map, perform the following tasks in the specified order:

- 1. Optionally, download the DBD file and copybook members.
- 2. Add a data map.
- 3. Import the DBD.
- 4. Import a COBOL copybook for each segment in the IMS database.
- 5. Send the data map to the remote z/OS PowerExchange Listener node.
- 6. Perform a database row test to verify that the data map is correctly defined.

### Step 1. Download the DBD File and Copybook Members

Optional. After you determine the location of the DBD file and the copybooks for the IMS segments, you can download them to the local PowerExchange Navigator system so that you can view or modify the DBD or copybooks locally, if necessary.

1. Download the DBD and copybook files to the local PowerExchange Navigator system.

Save the DBD file with the file name extension of .dbd. Save each copybook with the extension of .cob.

 Review the copybooks to determine if they contain REDEFINES statements. If so, determine which values to use for the set of REDEFINES statements.

Only one set can be selected. If you need assistance, contact the application data SME at your site.

### Step 2. Add a Data Map

Enter a short description of the task here (optional).

- 1. Start the PowerExchange Navigator.
- 2. On the Resources tab, right-click Data Maps and select Add Data Map.

The following image shows this right-click menu:

Informatica PowerExchange Navigator File Edit Add Resource View Option	ns Window Help			
H & * + + + * X &	) 🐁 🗡 📇 🖽 + 🛛			
Resource Explorer X	Resources			
Ball Resources     Data Capture     Data Capture     Add Data Map     Exported Datamaps     Geno.map2     Geno.map1     Geno.map1	demo_oracle @test.mvstypes demo.map3 @demo.map2	ရာsample.map1 ရား ရာCOBOL.map2 ရာ	vwxstat.file किdemo4.empss01 €	∰demo1.map1 ∰demo.map4
Resources				
Ready	Resource Oper	n :None		1

The wizard for creating a data map starts and displays the Name dialog box:

	Schema Name Access Method leroy DL/1 BATCH
Data Map	Data Map Name imssamp
	✓ Import Record Definitions
	Import Key Fields/FDT

- 3. Enter the following information:
  - a. In the Schema Name field, enter a user-defined name of up to 10 characters in length.

**Tip:** You can initially use the name of the data map developer as the schema name. After the data map has been created and tested, you can change the schema name to a schema name that you use for other data maps. Often, the schema name represents the PWXPC application.

b. In the Access Method list, select DL/1 BATCH. This setting enables you to use either DL/I or BMP batch access to an IMS database. Both of these access types require that you configure a netport job.

Note: You can select IMS ODBA if ODBA is activated for the IMS database. However, subsequent steps in this article assume that you select DL/1 BATCH.

c. In the **Data Map Name** field, enter a user-defined name for the data map of up to 10 characters in length. This name must begin with a letter.

Usually, this name matches the NAME parameter value in the DBD statement in the DBD file. For example, the following DBD statement specifies a NAME value of IMSSAMDB:

DBD NAME=IMSSAMDB, ACCESS=(HIDAM, VSAM)

Based on this example, you would enter a data map name of IMSSAMDB.

d. Select Import Record Definitions to be able to import a DBD and copybooks into the data map.

#### 4. Click Next.

#### The DL/1 Batch Access Method dialog box appears:

DL/1 Batch Access	Method	×
Data Map	IMS SSID DBD Name IMS9 IMSSAMDB PCB Number 1 Data Codepage	
	Skip First 0 Records from File	
	< Back Finish Cancel	Help

- 5. Enter the following information:
  - a. In the IMS SSID field, enter an IMS subsystem ID, such as IMS9. Maximum length is four characters.

**Note:** For DL/1 BATCH access, this value is a logical SSID that matches the SSID that is specified in an IMSID statement in the DBMOVER configuration member and in the registration group. This logical SSID is not used for DL/I access to the IMS database.

- b. In the **DBD Name** field, enter a DBD name.
- c. In the PCB Number field, enter the relative PCB number for the DBD in the PSB. If the PSB specifies COMPAT=YES, add 1 to the PCB number.

A PCB number is required for DL/I and BMP access to IMS data. The PSB that is specified in the NETPORT statement in the DBMOVER member on z/OS must contain a PCB entry for the DBD.

Note: You can override the IMS PSB name in the NETPORT statement in one of the following ways:

• Explicitly declare it as follows:

PSB=<psb\_name>

 In the netport JCL, specify the following input substation variable to pass a PSB name override at execution time:

PSB=%PSBNAME

The PSB name override is specified in the PowerCenter **IMS PSBNAME Override** session property for a source or target or in the PowerExchange Navigator **PSB Name** advanced parameter for a database row test. The override value replaces the substitution variable for the session or row test. By using the substitution variable with an override, you can use the same JCL and same set of NETPORT and LISTENER statements for multiple PSBs

- d. In the Default Codepage and Skip First fields, accept the Default values.
- 6. Click Finish.

If you selected the **Import Record Definitions** option, the **Import Copybook - Source Details** dialog box appears.

### Step 3. Import the DBD

Enter a short description of the task here (optional).

1. If the Import Copybook - Source Details dialog box is not displayed, click File > Import Copybook.

×	Source	
	Column Range Start End 1 ÷ 72 ÷	
	FDIC File Details Database ID File Number	

 Select Local or Remote. Select Local if you downloaded the DBD to the Windows system in "Step 1. Download the DBD File and Copybook Members." Otherwise, select Remote to read the DBD from the z/OS system

- 3. In the Type list, select DBD
- 4. Click Next.

If you selected **Local** in step 2 of this procedure, the **Import Copybook - Local DBD Details** dialog box appears:

×	File Name C:\Informatica	\PowerExchange	e9.6.0\imsdemo\im	
	Preview			
< Back	Next >	Finish	Cancel	Help

~	File Name	Location
<u>- 10</u>	UserID	Password
	J Save File Locally As	1
	import.cob	
	Name	
	Name Browse	e List
	Preview	

If you selected Remote in step 2, the Import Copybook - Remote DBD Details dialog box appears:

- 5. Enter the following information:
  - a. In the File Name field, enter the fully qualified name of the DBD data set.
  - If you selected the **Remote** option, complete the following fields to connect to the z/OS system and read the DBD:
    - In the Location list, select the z/OS node name, as defined in a NODE statement in the dbmover.cfg configuration file on the local Windows system.
    - In the User ID and Password fields, enter a valid user ID and password that allows access to the z/OS system if you set the first parameter in the SECURITY statement to 1 or 2 in the DBMOVER configuration member on the z/OS system.
    - Optionally, edit the default DBD name in the Save File Locally As field to save the DBD locally under another name. Use the extension .dbd in the file name.
  - c. Click **Preview** to verify the name of DBD that was imported and to view the DBD contents.

When you are finished, close the preview window.

6. Click Next.

	Prompt on record import			
	Prompt on field import	Prompt on field import		
EQ.	Prompt on table creation			
	Create table on each reco	rd imported		
	Create tables for DL1 hiera	archical paths		
	Refresh table columns for	imported reco	rds	
	Select first data redefinition	n		
	Start import automatically			
	Action on duplicate record	PROMPT	•	
	Action on duplicate field	PROMPT	-	
	Action on duplicate table	PROMPT	•	

The Import Copybook - Configuration Details dialog box displays a list of options for the import operation:

7. Optionally, edit one or more of the options.

**Tip:** Select the **Prompt on table creation** option to be able to verify that the PowerExchange Navigator creates a table definition for each record definition

8. Click Finish.

The Import Copybook Information dialog box lists the import options that you set:

Source :	LOC	4L
File Name :		
C:\Informatica\Po	werExchang	je9.6.0\imsdemo\imssamp
Туре:	DBD	
Start :	1	
End:	72	
Prompt on record	import :	YES
Prompt on field imp	port :	NO
Prompt on table ci	reation :	YES
Create table on re	cord import :	YES
Create tables for L	)L1 hierarchi	cal paths: NU
Refresh table colu Calaat Gat Jata a	imns :	NU
Select first data re Start import autom	aerinition :	TES VEC
Action on duplicat	e record :	PROMPT
Action on duplicat	e field	PROMPT
Action on duplicat	e table :	PROMPT
iston on auplicat		
OK		Connel

9. If the information is correct, click **OK**. Otherwise, click **Cancel** and start over from the beginning of <u>"Step 2</u>. Add a Data Map" on page 6.

Record Definition Record Import Name DTLSACC	
C Skip C Stop Import	Record
Click to view current da	ort session

After you click **OK**, the **Record Definition** dialog box appears:

 Optionally, edit the name of the record to import, or select Skip to skip the record. Skipping the record is not recommended for the initial DBD import. **Tip:** If you need to modify a segment record that is in the DBD later, you can reimport the DBD and use the **Skip** option to skip all of the segments that were not changed. In this manner, you can update the data map with only the updated record definition.

If you want to apply your settings to the remaining records, select **Apply** to rest of import session. However, you can then not view the record name for each segment.

- 11. Click OK.
- 12. Repeat steps 10 and 11 for each record definition.

After all the record definitions are processed, the Table Definition dialog box appears:

Import     Name DTLSACC	
C Skip C Stop Import	Table
Table Browse	-
Click to view current datamap tables	

If you did not select the **Prompt on table creation** option on the **Import Copybook - Configuration Details** dialog box, the **Table Definition** dialog box is not displayed.

**Note:** Do not change the options in the **Table Definition** dialog box. These options are the same as in the **Record Definition** window.

13. Click OK.

Repeat step 12 for each table definition.

After you click **OK** for the last table definition, the **DBD Import** window displays the imported DBD file and Copybook Message Log:

Inform	natica Pow	verExch	hange Navigator	- [PWX960]	VTPUT DESPLAY IN	_ 🗆 🗙
Import	Record	Redef	finition			
			•			
∎↓ DBD	Import					<b>—</b>
Line	R	ecor	ď			
1		* S	SYNCHRONOUS	CAPTURE		
2			DBD	NAME=IMSSAMDB,ACCESS=(HIDAM,USAM)		
3		DSG	001 DATASI	T DD1=IMSSAMDB,DEVICE=3380,SIZE=(4096),SCAN=3,	x	
4				FRSPC=(5,10)		
5		* R	ROOT			
6			SEGM	NAME=DTLSACC,BYTES=80,PTR=(TB),	x	
7				PARENT=0		
8			FIELD	NAME=(KEYACCT,SEU,U),BYTES=10,START=1,TYPE=C		
9			LCHILI	NAME=(INDEX,IMSSAMIX),PIR=INDX		
10		* (;	CEON	HANE ATLEADA DUTES OF BADENT ATLEADA		
11			SEGR	NHME=UILSHUD,BYIES=80,PHKENI=UILSHUG NAME=(ADDWEN,SEQ N), DUTES=40,STADT=4, TUDE=0		
12		* 0	FIELD	MHME=(HDDKEY,SEQ,D),BYTES=T0,STHKT=T,TYPE=C		
10		* 0	SEGM	9962 ITA-TARAGE 88-23TV0 AGT2 ITA-3464		
15			FIFID	NAME=(TRNKEY SEA II) RYTES=10 START=1 TYPE=C		
16			DBDGEI			
17			FINIS			
18			END SI			
Сорувоо	ok Messa	ge Log	1			
Row: M	lessage					*
PWX-04	1021 3 reco	ords in	nported.			
PWX-04	1025 3 field	ds imp	orted.			
PWX-04	4026 3 tab	les crea	ated.			=
PWX-04	1022 0 erro	ors enc	ountered.			
1				m		
		-				
Source N	Message Lo	g				
Ready				Data Map Open : leroy.imssam	p	11.

Review the messages in the log to determine if any errors occurred. The log also lists the number of records and fields imported and the number of tables created.

14. Close the **DBD Import** window.

The Data Map tab in Resource Explorer displays the data map and its records and tables:

Resource Explorer	×
Ieroy.imssamp DTLSACC DTLSADD DTLSTRN DTLSACC DTLSADD DTLSADD DTLSADD DTLSADD DTLSTRN	
Resources	

The items with the blue-disk icon are record definitions. A record definition is the physical layout of the fields in the segment.

The items with the square-table icon are table definitions. A table definition is the logical relational layout of the data. You can import the table definitions into PowerCenter to create source definitions for bulk data movement mappings.

# Step 4. Import the Copybook

Enter a short description of the task here (optional).

After the DBD import, the data map contains the database segment hierarchical structure with some field definitions. You can now import a copybook for each segment in the IMS database to overlay each segment with its COPYLIB. A copybook for a segment contains the structure of the key data and non-key data and describes the physical layout of the data.

You can import the copybooks for the segments individually or concatenate the copybook files into one file so that you can do a single import for all segments.

- 1. Use one of the following methods to open the data map if it is not already open.
  - Double-click the data map name in the Data Maps list.
  - Right-click the data map name in the Data Maps list and click Open.
  - Select the data map name in the Data Maps list and click File > Open Resource from the menu bar
- 2. Click **File > Import Copybook** on the menu bar.

The Import Copybook - Source Details dialog box appears again.

- 3. Complete the following information:
  - Select Local or Remote. Select Local if you downloaded the copybook to the Windows system in <u>"Step 1.</u> <u>Download the DBD File and Copybook Members" on page 6</u>. Otherwise, select Remote to read the DBD from the z/OS system.
  - b. In the Type list, select COBOL.

Alternatively, you can use a PL/I copybook for an IMS source.

c. Verify that the column numbers in the Start and End fields define the copybook column range.

The following image shows an example of a completed dialog box:

×	Source C Local C Remote Type COBOL
	Column Range Start End 7 ÷ 72 ÷
	FDIC File Details Database ID File Number

4. Click Next.

If you selected Local in step 3a, the Import Copybook - Local Cobol Details dialog box appears:

X	File Name C:\Informatica	\PowerExchange	9.6.0\imsdemo\im	
	Preview			
< Back	Next >	Finish	Cancel	Help

If you selected Remote in step 3a, the Import Copybook - Remote Cobol Details dialog box appears:

×	File Name I.IMS.V960(IMSSAMCP) UserID	Location imsnode Password	•
	Save File Locally As import.cob		
	Name Browse	List	_
	Preview		

- 5. Complete the following information:
  - a. In the File Name field, enter the fully qualified name of the copybook file to be imported.
  - b. If you selected the **Remote** option, complete the following additional fields to connect to the remote z/OS system from which to read the copybook:
    - In the **Location** list, select the z/OS node name.
    - In the User ID and Password fields, if you set the first parameter in the SECURITY statement to 1 or 2 in the DBMOVER configuration member on the z/OS system, enter a valid user ID and password that allows access to the z/OS system.
    - Optionally, edit the default DBD name in the **Save File Locally As** field to save the copybook locally under another name. Use .cob as the file name extension.
  - c. Click **Preview** to verify the name of copybook to be imported and to preview its contents. When you are finished, close the preview window.
- 6. Click Next.

The Import Copybook	- Configuration	Details dialog box	k appears again:
---------------------	-----------------	--------------------	------------------

	Prompt on record import	E	
5.2	Prompt on field import		
ZQ -	Prompt on table creation	n	
	✓ Create table on each re	cord imported	
	☐ Create tables for DL1 h	ierarchical paths	5
	Refresh table columns f	or imported reco	ords
	🔲 Select first data redefini	tion	
	Start import automatical	ly	
	Action on duplicate record	PROMPT	•
	Action on duplicate field	PROMPT	-
	Action on duplicate table	PROMPT	-

7. Optionally, edit one or more of the options.

Ensure that the **Refresh table columns for imported records** check box is selected to eliminate the need to perform additional steps later to refresh table definitions with the additional columns from the copybook.

8. Click Finish.

The Import Copybook Information dialog box lists the import options that you set.

If the information is correct, click OK. Otherwise click Cancel and start over from <u>"Step 2. Add a Data Map" on page 6</u>.

After you click **OK**, the **Record Definition** dialog box appears.

10. Click OK.

11. If the DBD and COBOL copybook use the same record (segment) names, replace the DBD record information with the copybook information for the same record (segment). In the **Record Browse** list, select a record name. Then verify that it matches the **Name** value.

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-
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The Duplicate Record Definition dialog box appears:

If this dialog box is not displayed, start over. When you return to the **Record Definition** dialog box, ensure that the **Record Browse** and **Name** values match.

**Tip:** You can edit the copybook to use the same record name as the DBD or change the record names during the copybook import operation.

- 12. Select **Overwrite** and select **Fields Only** in the adjacent list box.
- 13. Click OK.

**Note:** If the copybook contains REDEFINES clauses, the **Copybook Redefines** window indicates that REDEFINES clauses exist.

14. Repeat Steps 10-13 for each imported record

After the information for the last record is imported, the **Cobol Import** window displays the copybook and Copybook Message Log:

🔀 Informatio	ca PowerExchange Navigator			
Import Rec	ord Redefinition			
	Beenud			
Line	ABB101		8882.84	
0	999194* 999299* DTI SACC CODOL CODUDOOK		00020001	
10	000200* DILSHUG GUDUL GUFTDUUK		00021000	
14	000300* 000300*	CT_ID = 18	00030000	
12	000400* HCCOUNT MHSTEN HC	GT-ID - TØ	8885 8888	
13	000600# SECID=DTI SACC		00000000	
14			88878888	
15	AAAAAA* SEGI N=8A		6666 6666	
16	000900*		66696666	
17	001000 01 MASTER-REC.		00100000	
18	001100 05 MSTR-KEY.		00110000	
19	001200 10 ACCOUNT	PIC 9(6).	00120000	
20	001300 10 ACCT-ID	PIC X(02).	00130000	
21	001400 10 ACCT-SEQ	PIC X(02).	00140000	
22	001500 05 ACCT-TYPE	PIC X(10).	00150000	
23	001600 05 ACCT-LAST-NAME	PIC X(15).	00160000	
24	001700 05 ACCT-FIRST-NAME	PIC X(15).	00170000	
25	001800 05 BALANCE	PIC 9(6)099.	00180000	
1		BTA 11/663		
Copybook M	lessage Log			
Row: Messa	age			
PWX-04025	27 fields imported.			
PWX-04026	0 tables created.			N
PWX-04044	3 tables refreshed from imported records.			45
PWX-04022	0 errors encountered.			
1.				•
Source Mess	age Log			
leady		Data Map Open : lerov.imssamp		

15. Review the Copybook Message Log to determine if errors occurred.

The log also lists the number of records and fields that were imported. The log displays 0 for the number of tables if the copybook import did not refresh the table definitions. This situation occurs if you did not select the **Refresh table columns for imported records** check box on the **Import Copybook - Configuration Details** dialog box.

16. Close the Cobol Import window.

At this point, the data map includes the hierarchical structure of the database from the DBD import and the record definitions with the updated field definitions from the COBOL copybook import.

### Step 5. Send the Data Map to the Remote z/OS PowerExchange Listener Node

In this procedure, you convert the data map into an operating-system-independent file and send it to the z/OS node where the PowerExchange Listener runs. PowerExchange can then access the file for bulk data processing and to get metadata for capture registration creation.

- 1. Open the data map if it is not already open.
- 2. Select the data map name to highlight it.
- 3. Click File > Send to Remote Node from the menu bar. Or click the Send to node icon on the toolbar:



The Data Map Remote Node dialog box appears:

Data Map Remot	e Node		×
Configuration			
	User ID	Password	
M	Location imsnode	File Password	
	, I▼ Save User ID an	nd Password(s) for session.	2
	0	Cancel	Help

- 4. If the first parameter in the SECURITY statement is set to 1 or 2 in the DBMOVER member on z/OS, enter a valid z/OS user ID and password.
- 5. In the Location list, select the node name of the z/OS system that contains the IMS source database.

The listed locations are node names from the NODE statements in the local dbmover.cfg file on Windows. If the location you need is not listed, you must shut down the PowerExchange Navigator, add a NODE statement for the location to the dbmover.cfg file, and restart the PowerExchange Navigator.

6. Click OK.

A message box displays the status of the send operation. Message PWX-01700 indicates that the data map was successfully sent to the node.

7. Click **OK** .to close the message box.

### Step 6. Perform a Database Row Test

A database row test verifies that the data map can be used to access the source and display source data.

Before you begin, make sure that you completed the prerequisite tasks described in "Preparation" on page 2.

- 1. Open the data map if it is not already open.
- 2. On the **Data Map** tab in the Resource Explorer, select a table in the data map.
- 3. Click File > Database Row Test on the menu bar. Or click the Row Test icon on the toolbar:.



#### The Database Row Test dialog box appears:

Database	Location	Override File Name	Ele Password	Meta Data		Go
NRDB -	hetnode	• [			Respect case	Help
<u>U</u> serID	Password	Eetch Data	Access Methods	Meta Qual2	Respect case	
SQL					Respect case	
🗖 SQL File 📘			Egk.	Comments	Extensions	
0 SQL Statement	SQL <u>B</u> ecor	d Length		Advanced	Application	
select * from vptes	t3.vpimsdm2.DTLSA	cc	*	Escape Chara	cter	
				Get 10 -	Rows	

- 4. If you want to specify an override PSB name for the row test, click the Advanced button.
- 5. In the DB Type field, select NRDB.
- 6. In the **Location** list, select the Listener node name that is specified in the NETPORT statement in the DBMOVER member on the z/OS system.
- 7. In the Fetch list, select Data to preview data.
- 8. Click Go.

The Database Row Test Output window displays the results of the database row test in table format:

Database Row Test Output																
6	Row Number	CCK_DTLSACC_AC.	CCH	CDTLSACC_AC	CCK	DTLSACC_ACC_	ACCOUNT	ACC.	ACCT_S	ACCT_TYPE	ACCT_LAST_NAME		ACCT_FIRST_N	IANE	BALANCE	FILLE
F		1	10		00		1	10	00	CHECKING	DOE .		JOHN	-	1000.00	
2	2	205	10		00		205	10	00	CHECKING	SMITH		CHRISTY		1000.00	6 I
1	3	206	10		00		206	10	00	CHECKING	JONES	- 1	SAMANTHA	-	1000.00	
ŀ	·	2												_		
F	low Test Results															

**Tip:** If no data is returned, verify that the dbmover.cfg file on the local PowerExchange Navigator system includes a NODE statement that points to the port specified in the NETPORT statement in the DBMOVER member on the z/OS system.

### **Recommended Reading**

In the *PowerExchange Navigator User Guide*, see the "IMS Data Maps" section in "Chapter 3: Data Maps for Specific Sources."

### Author

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