



informatica Marketplace

Name of Solution:

Mapping : Convert Rows To Columns

Business Requirement:

PowerCenter mapping to pivot data from the multiple rows into columns in a single row.

Solution URL:

<https://community.informatica.com/solutions/1628>

Supported Versions:

Informatica PowerCenter 9.1 and above.

Description:

Overview

This solution describes how to pivot data from the multiple rows into columns in a single row.

Source

CUSTOMER_ID	PRODUCT_CATEGORY	SALES_AMT
CUST_1	CAT_A	2000
CUST_1	CAT_B	3000
CUST_1	CAT_C	4000
CUST_2	CAT_A	8000
CUST_2	CAT_C	7000

Target

CUSTOMER_ID	CATEGORY_A_AMT	CATEGORY_B_AMT	CATEGORY_C_AMT
CUST_1	2000	3000	4000
CUST_2	8000		7000

There are a few different methods of building one record out of several. Often this can be accomplished by using an aggregator. Alternatively, an Expression variable logic can be utilized. This mapping template illustrates all the methods.

Download file contents:

1. Source File
2. Mappings

Steps to implement the solution:

1. Place source file in \$PMSourceFileDir folder.
2. Import workflow using the Repository Manager. Select the appropriate folder from the repository and resolve the conflicts by choosing suitable option.
3. In the PowerCenter Designer, If the source data is not sorted then using Sorter Transformation to sort the data. In all mappings the sorter transformation is used.

In mapping "m_Rows_to_Column_Pivot", observe the logic of Aggregator Transformation as shown below,

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation:  agg_Category_Amount

Transformation type: Aggregator

	Port Name	Datatype	Prec	Scale	I	O	V	Expression	GroupBy
1	CUSTOMER_ID	string	6	0	☒	☒	☐	CUSTOMER_ID	☒
2	PRODUCT_CATEGORY	string	5	0	☒	☒	☐	PRODUCT_CATEGORY	☐
3	SALES_AMT	decimal	4	0	☒	☒	☐	SALES_AMT	☐
4	o_Category_A_AMT	integer	10	0	☐	☒	☐	max(SALES_AMT,PRODUCT_CATEGORY='CAT_A')	☐
5	o_Category_B_AMT	integer	10	0	☐	☒	☐	max(SALES_AMT,PRODUCT_CATEGORY='CAT_B')	☐
6	o_Category_C_AMT	integer	10	0	☐	☒	☐	max(SALES_AMT,PRODUCT_CATEGORY='CAT_C')	☐

In mapping "m_Row_To_Columns_with_Expression", observe logic of Expression Transformation as shown below,

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation:  exp_Category_Amount

Transformation type: Expression

	Port Name	Datatype	Prec	Scale	I	O	V	Expression
1	in_CUSTOMER_ID	string	6	0	☒	☒	☐	in_CUSTOMER_ID
2	PRODUCT_CATEGORY	string	5	0	☒	☒	☐	PRODUCT_CATEGORY
3	SALES_AMT	decimal	4	0	☒	☒	☐	SALES_AMT
4	New_Cust_ID_Flag	string	10	0	☐	☐	☒	iif(in_CUSTOMER_ID=v_Custome_ID,'N','Y')
5	v_Category_A_AMT	integer	10	0	☐	☐	☒	-iif(New_Cust_ID_Flag='Y',iif(PRODUCT_CATEGORY='CA...
6	v_Category_B_AMT	integer	10	0	☐	☐	☒	-iif(New_Cust_ID_Flag='Y',iif(PRODUCT_CATEGORY='CA...
7	v_Category_C_AMT	integer	10	0	☐	☐	☒	-iif(New_Cust_ID_Flag='Y',iif(PRODUCT_CATEGORY='CA...
8	v_Custome_ID	string	10	0	☐	☐	☒	in_CUSTOMER_ID
9	o_Category_A_AMT	integer	10	0	☐	☒	☐	v_Category_A_AMT
10	o_Category_B_AMT	integer	10	0	☐	☒	☐	v_Category_B_AMT
11	o_Category_C_AMT	integer	10	0	☐	☒	☐	v_Category_C_AMT

Observe logic of the Aggregator Transformation as shown below,

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: **aggr_Customer_ID**

Transformation type: Aggregator

	Port Name	Datatype	Prec	Scale	I	O	V	Expression	GroupBy
1	CUSTOMER_ID	string	6	0	☒	☒	☐	CUSTOMER_ID	☒
2	o_Category_A_AMT	integer	10	0	☒	☒	☐	o_Category_A_AMT	☐
3	o_Category_B_AMT	integer	10	0	☒	☒	☐	o_Category_B_AMT	☐
4	o_Category_C_AMT	integer	10	0	☒	☒	☐	o_Category_C_AMT	☐
5	Category_A_AMT	integer	10	0	☐	☒	☐	last(o_Category_A_AMT)	☐
6	Category_B_AMT	integer	10	0	☐	☒	☐	last(o_Category_B_AMT)	☐
7	Category_C_AMT	integer	10	0	☐	☒	☐	last(o_Category_C_AMT)	☐

In mapping "m_Rows_To_Columns_with_Expression_Filter", in Expression Transformation we assign a sequence number for each customer and in Aggregator we count records by grouping the "CUSTOMER_ID".

Observe the logic of Expression transformation as shown below,

Edit Transformations

Transformation Ports Properties Metadata Extensions

Select transformation: **exp_Category_Amount**

Transformation type: Expression

	Port Name	Datatype	Prec	Scale	I	O	V	Expression
1	in_CUSTOMER_ID	string	6	0	☒	☒	☐	in_CUSTOMER_ID
2	PRODUCT_CATEGORY	string	5	0	☒	☒	☐	PRODUCT_CATEGORY
3	SALES_AMT	decimal	4	0	☒	☒	☐	SALES_AMT
4	New_Cust_ID_Flag	string	10	0	☐	☐	☒	if(in_CUSTOMER_ID=v_Custome_ID,'N','Y')
5	v_Category_A_AMT	integer	10	0	☐	☐	☒	-if(New_Cust_ID_Flag='Y',if(PRODUCT_C...
6	v_Category_B_AMT	integer	10	0	☐	☐	☒	-if(New_Cust_ID_Flag='Y',if(PRODUCT_C...
7	v_Category_C_AMT	integer	10	0	☐	☐	☒	-if(New_Cust_ID_Flag='Y',if(PRODUCT_C...
8	v_Custome_ID	string	10	0	☐	☐	☒	in_CUSTOMER_ID
9	o_Category_A_AMT	integer	10	0	☐	☒	☐	v_Category_A_AMT
10	o_Category_B_AMT	integer	10	0	☐	☒	☐	v_Category_B_AMT
11	o_Category_C_AMT	integer	10	0	☐	☒	☐	v_Category_C_AMT
12	v_count	integer	10	0	☐	☐	☒	if(New_Cust_ID_Flag='N',v_count+1,1)
13	Count_By_Customer	integer	10	0	☐	☒	☐	v_count

Observe logic of Aggregator Transformation as shown below,

Transformation Ports Properties Metadata Extensions

Select transformation: **agg_Customer_ID**

Transformation type: Aggregator

	Port Name	Datatype	Prec	Scale	I	O	V	Expression	GroupBy
1	CUSTOMER_ID	string	6	0	☒	☒	☐	CUSTOMER_ID	☒
2	PRODUCT_CATEGORY	string	5	0	☒	☒	☐	PRODUCT_CATEGORY	☐
3	SALES_AMT	decimal	4	0	☒	☒	☐	SALES_AMT	☐
4	Count_Customer	integer	10	0	☐	☒	☐	count(CUSTOMER_ID)	☐

Then perform Master-Outer Join for the records from Expression and Aggregator Transformation. Then use the Filter Transformation to filter the required records.

Observe logic of Filter Transformation as shown below,

Edit Transformations

Transformation | Ports | Properties | Metadata Extensions

Select transformation:

Transformation type:

Transformation Attribute	Value
Filter Condition	Count_Customer = Count_By_Customer
Tracing Level	Normal

4. Open the workflow in Workflow Manager. Assign the integration service in Workflow -> Edit -> Integration Service
5. Execute the workflow and observe the target files.

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