

Feature Brief

Switch Transformation in Centerprise 7.5

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Overview

Switch transformation is among the newly introduced transformations that are included in Centerprise 7.5. It is a basic, yet an extremely useful transformation and has applications in a wide range of business use cases.

This transformation can be applied when there is a need to replace information stored in the source data with some other relevant information. Information is switched (or replaced) based on some preassigned rules.

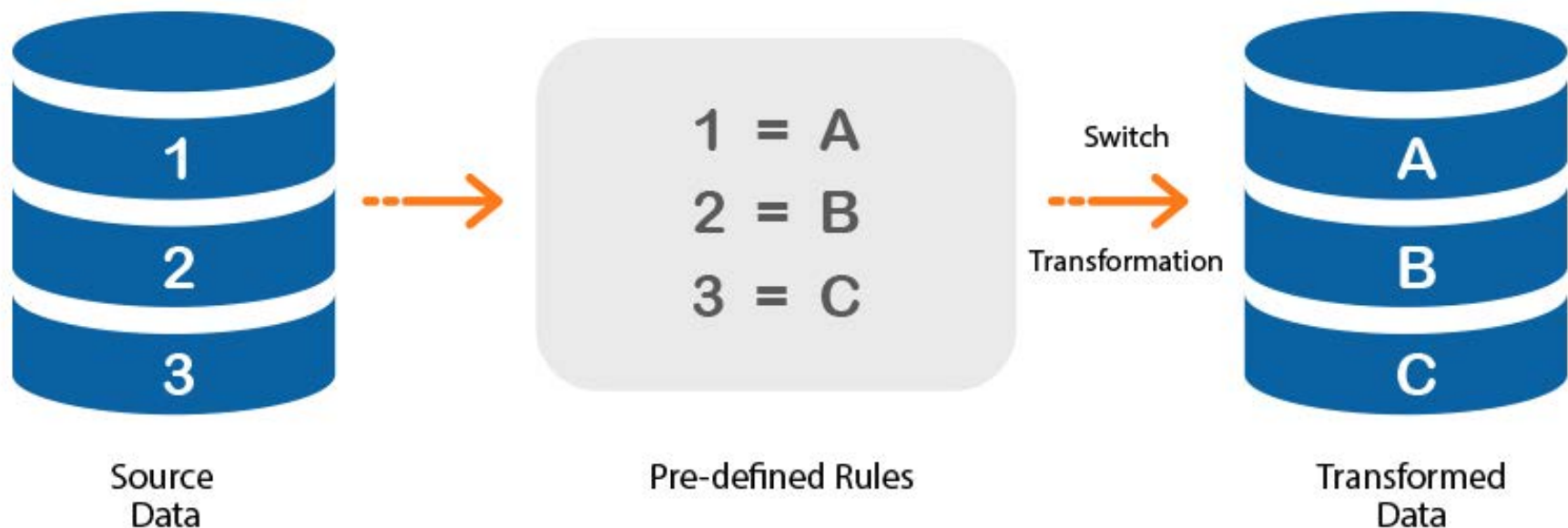


Figure 1

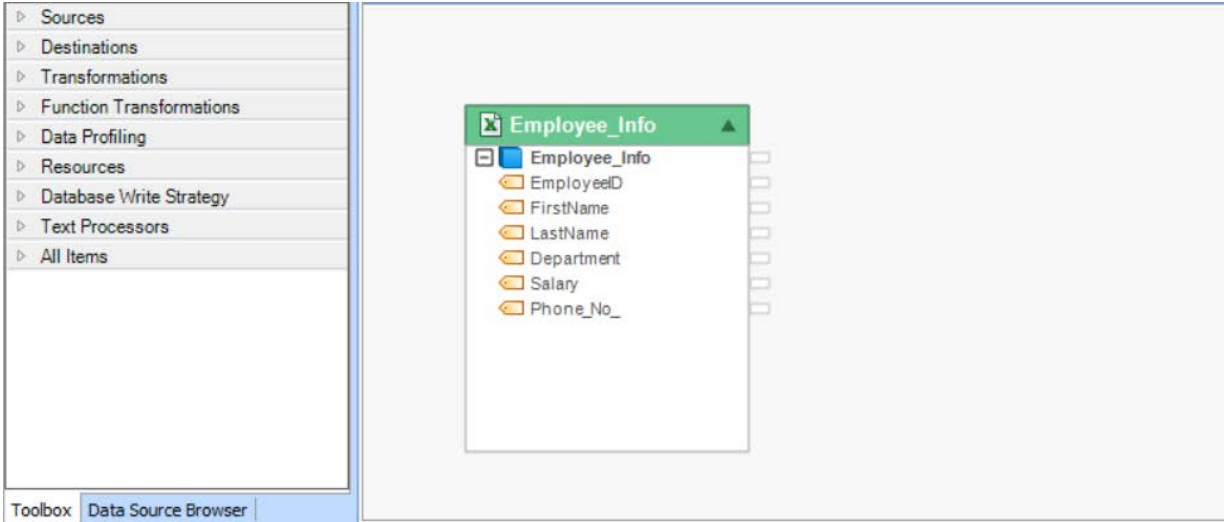
Switching information in source data

Switch Transformation Explained with a Business Use Case

An organization maintains a database for their employees. *Employee_Info* table in that database contains information such as employee's name, department, salary and employee ID.

For the ease of maintenance, the organization assigned a specific number to each department (Marketing, Sales, Finance etc.) and that information is recorded in the *Department* field as shown in Figure 1.

Using the Switch transformation, the numeric values stored in the *Department* field can be easily replaced with their corresponding department names.



Data Preview

Source Record Count 50

Data Preview for action Employee_Info. Total Records 50. Records With Errors 0. Duration 00:00:01.224.

Object Path	EmployeeID	FirstName	LastName	Department	Salary	Phone_No_
Employee_Info	1	Davolio	Nancy	1	6500	(206) 555-9857
Employee_Info	2	Fuller	Andrew	3	3500	(206) 555-9482
Employee_Info	3	Leverling	Janet	2	5300	(206) 555-3412
Employee_Info	4	Peacock	Margaret	5	3500	(206) 555-8122
Employee_Info	5	Buchanan	Steven	4	5000	(71) 555-4848
Employee_Info	6	Suyama	Michael	6	6000	(71) 555-7773
Employee_Info	7	King	Robert	1	5500	(71) 555-5598
Employee_Info	8	Callahan	Laura	1	5300	(206) 555-1189
Employee_Info	9	Dodsworth	Anne	1	6200	(71) 555-4444
Employee_Info	10	Vikrant	Kumar	2	6200	(206) 555-9857
Employee_Info	11	Ted	Thorne	3	7000	(206) 555-9482
Employee_Info	12	Chris	Keager	1	8000	(206) 555-3412

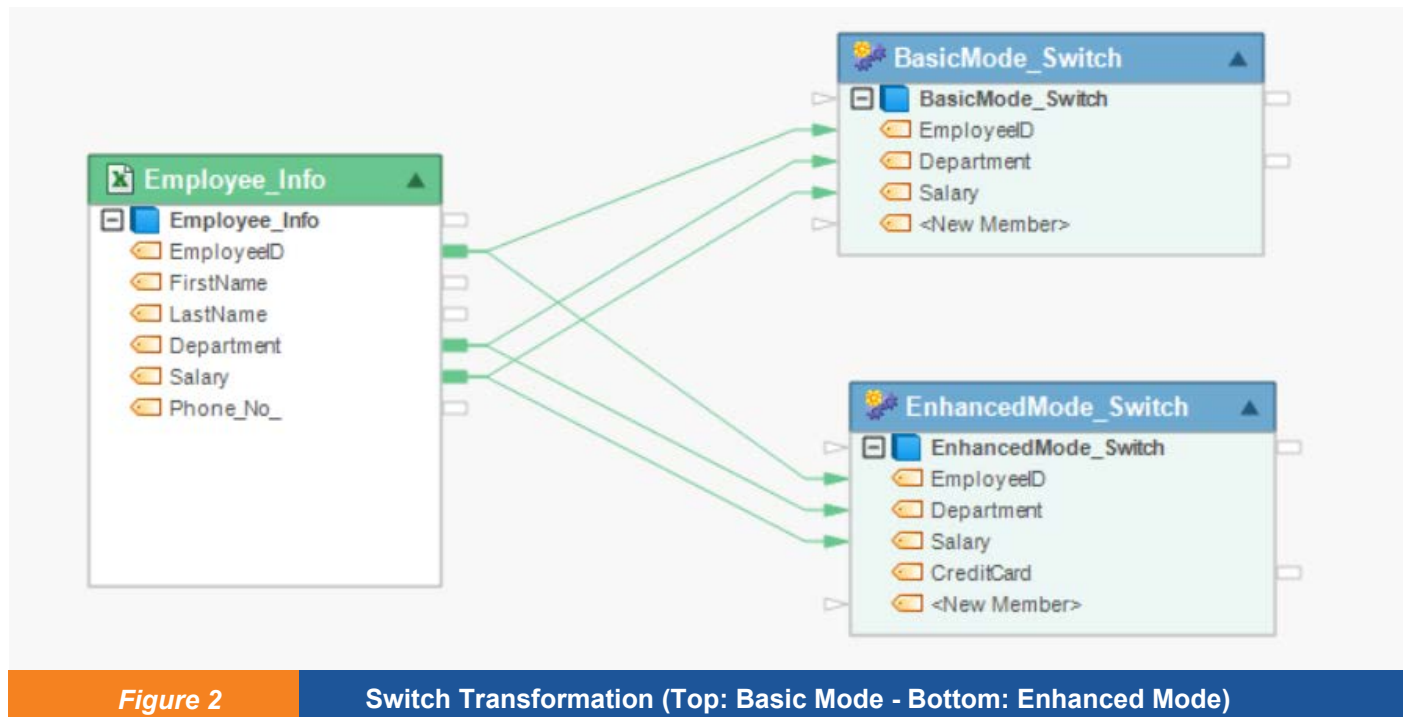
Figure 1

Source file and data preview before the switch transformation is applied

Basic Mode in Switch Transformation

The basic mode in Switch transformation works like a List Lookup. In this example, we want to replace the numeric information stored in the *Department* field with their actual corresponding departments.

Drag-and-drop the transformation from the toolbox to the designer and map the required fields. Here we are mapping *EmployeeID*, *Department*, and *Salary* fields from the source file to the Switch transformation (BasicMode_Switch).



In the properties window of the transformation, select the field that you want to perform the switch operation on, and specify the criteria in *Case Value*, based on which Centerprise will look for the information and replace it with the given information in the corresponding *Output Value*.

BasicMode_Switch : Switch Map Properties

Editing: BasicMode_Switch

Switch Case

☒ Basic Mode ☐ Enhanced Mode

Switch Field: Department

	Case Value	Output Value	Default
▶	1	Sales	☐
	2	Finance	☐
	3	Marketing	☐
	4	Quality Assurance	☐
	5	Human Resources	☐
	6	Software Development	☐
	7	Admin	☒
*			☐

Prev Next OK Cancel

Figure 3

Switch transformation properties window (Basic mode)

Now if you preview the output or write the transformed data to any destination, you will see that the numbers in the *Department* field are replaced with the information that is based on the rules assigned in the properties window shown in Figure 3. In case where Centerprise doesn't find any matching case value, it will automatically assign the specified default output value, which is *Admin* in this example.

Object Path	EmployeeID	Department	Salary
BasicMode_Switch	1	Sales	6500
BasicMode_Switch	2	Marketing	3500
BasicMode_Switch	3	Finance	5300
BasicMode_Switch	4	Human Resource	3500
BasicMode_Switch	5	Quality Assuranc	5000
BasicMode_Switch	6	Software Develop	6000
BasicMode_Switch	7	Sales	5500
BasicMode_Switch	8	Sales	5300
BasicMode_Switch	9	Sales	6200
BasicMode_Switch	10	Finance	6200
BasicMode_Switch	11	Marketing	7000
BasicMode_Switch	12	Sales	8000
BasicMode_Switch	13	Marketing	4000
BasicMode_Switch	14	Marketing	4200
BasicMode_Switch	15	Marketing	6800
BasicMode_Switch	16	Finance	7500

Figure 4

Data preview after the Switch transformation is applied

Enhanced Mode in Switch Transformation

The Enhanced mode in the Switch transformation provides more flexibility to the feature because it enables users to set lookup criteria by writing expressions. Figure 5 shows the properties window of the enhanced mode in Switch transformation.

Suppose our fictitious organization has set criteria for issuing credit cards. Employees whose salary is less than \$3,500 are not eligible for the credit card. Employees with a salary between \$3,500 and \$5,000 are eligible for the Silver card. Other similar assignments can be seen in the Case Expression column in Figure 5.

EnhancedMode_Switch : Switch Map Properties

Editing: EnhancedMode_Switch

Switch Case

☐ Basic Mode ☒ Enhanced Mode

Switch Field: Salary

Case Expression	Output Expression	Default
Salary < 3500	'Not Applicable'	☒
Salary >= 3500 and Salary < 5000	'Silver Card'	☐
Salary >= 5000 and Salary < 8500	'Gold Card'	☐
Salary >= 8500 and Salary <= 10000	'Platinum Card'	☐
*		☐

Prev Next OK Cancel

Figure 5

Switch transformation properties window (Enhanced Mode)

The organization has the data about employee's salaries and the ranges for the issuance of credit cards. In this case, employee's salary, which is the information that is stored in the database, is not relevant to the concerned department. What they're looking for is to identify which employee is eligible for which perk. This can easily be achieved by matching the salary ranges defined in the *Case Expression* and switching it with the corresponding information about the credit cards specified in the *Output Expression*.

Figure 6 shows the output preview for the enhanced mode case in the Switch transformation.

Data Preview				
Source Record Count 0				
Data Preview for action EnhancedMode_Switch. Total Records 97. Records With Errors 0. Duration 00:00:00.570.				
Object Path	EmployeeID	Department	Salary	CreditCard
EnhancedMode_37	37	5	5000	Gold Card
EnhancedMode_38	38	6	9700	Platinum Card
EnhancedMode_39	39	6	9500	Platinum Card
EnhancedMode_40	40	6	8900	Platinum Card
EnhancedMode_41	41	6	6500	Gold Card
EnhancedMode_42	42	6	7000	Gold Card
EnhancedMode_43	43	6	7500	Gold Card
EnhancedMode_44	44	6	8000	Gold Card
EnhancedMode_45	45	1	3200	Not Applicable
EnhancedMode_46	46	2	7500	Gold Card
EnhancedMode_47	47	1	6800	Gold Card
EnhancedMode_48	48	5	4000	Silver Card
EnhancedMode_49	49	1	6500	Gold Card
EnhancedMode_50	50	2	7800	Gold Card
EnhancedMode_51	51	3	6500	Gold Card
EnhancedMode_52	52	1	7200	Gold Card
EnhancedMode_53	53	2	8700	Platinum Card
EnhancedMode_54	54	1	4500	Silver Card
EnhancedMode_55	55	4	7600	Gold Card
EnhancedMode_56	56	4	6700	Gold Card
EnhancedMode_57	57	1	4300	Silver Card
EnhancedMode_58	58	6	7200	Gold Card
EnhancedMode_59	59	6	6400	Gold Card
EnhancedMode_60	60	6	8600	Platinum Card
EnhancedMode_61	61	1	3700	Silver Card

Figure 6

Output preview of Switch transformation in the enhanced mode

Bottom Line

Switch transformation gives users more control over data as it enables them to transform the given information into something more relevant, which is best suited to the given business scenario. When applied to any data set, switch transformation matches source data for the criteria specified by the user, and replaces the information with the desired output (also specified in the layout) wherever the criteria is met.

About Centerprise Data Integrator

Centerprise Data Integrator is a unified solution for enterprise data integration needs. Its user-friendly interface and drag and drop environment simplifies the data integration process for users. Its powerful data mapping capabilities and comprehensive library of transformations, make data visualization and analysis easier for business users. The framework is designed to enable business users to work with data without relying on IT and the end-result is a cost-effective agile data management solution.





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