

# How to Make Conditions and Exceptions Work Based on User Defined Values at the Time of Report Execution



## Applies to:

SAP BW 3.5 & BI 7.0. For more information, visit the [EDW homepage](#).

## Summary

This Article will help you in understanding the use of Variables in providing an option to the users for defining the values for Conditions and Exceptions at the time of Report Execution. This article will also help you in creating Variable for a Key Figure. The article assumes prior knowledge on Conditions and Exceptions in reports and provides an exhaustive solution replete with screenshots for clear understanding.

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## 1 Introduction

In this Article we will discuss on how to provide an option to the users for defining the values for Conditions and Exceptions at the time of Report Execution. Here we will discuss this using a simple scenario.

## 2 Business Scenario

Let's take the sales report of an organization into consideration for our scenario. We should consider the truth that the sales in an organization will vary every month, based on the market trend and also based on the economy. The target for a particular month will be set based on the trend analysis (check last year's sales and set goals for this year). For this particular sales report, user want the Conditions and exceptions to work based on last year's sales report, i.e. depending on the sales in the past year, the user will provide the values and the Conditions and Exceptions should work accordingly in the sales report.

For our scenario let's take the sales in the month of November 2009 were 200 and the target for the month of November 2010 based on last year's sales will be around 220. In the sales report of November 2010 the user wants the sales values anything less than 200 to be shown as RED.

Depending on the market trend the target will be set for that particular month and based on that user want the Conditions and Exceptions to work in the sales report. This value may change depending on the sales of last year and the Condition and Exception values will be given by the user as desired.

## 3 The Result

When the user provides values in the variables depending on the business requirement and executes the report, the Conditions and Exceptions will work based on the values entered in the variables, i.e. the report result is dependent on the values entered by the user and the Conditions and Exceptions will work based on the values entered in the variables by the user.

Here the exceptions and conditions will work depending on the value given by the user.

## 4 Solution

### Create variables in Conditions and Exceptions to use them in the report.

To achieve the above required result, we are going to use the option of creating new variables at the time of defining Conditions and Exceptions and use them in the report. The user will provide values in the variables depending on the business requirement and executes the report, the Conditions and Exceptions will work based on the values entered in the variables. In the next step we will see the step-by- step procedure to achieve the above scenario.

In this way we can give option to the user to provide values for the Conditions and Exceptions and get the desired output for the report.

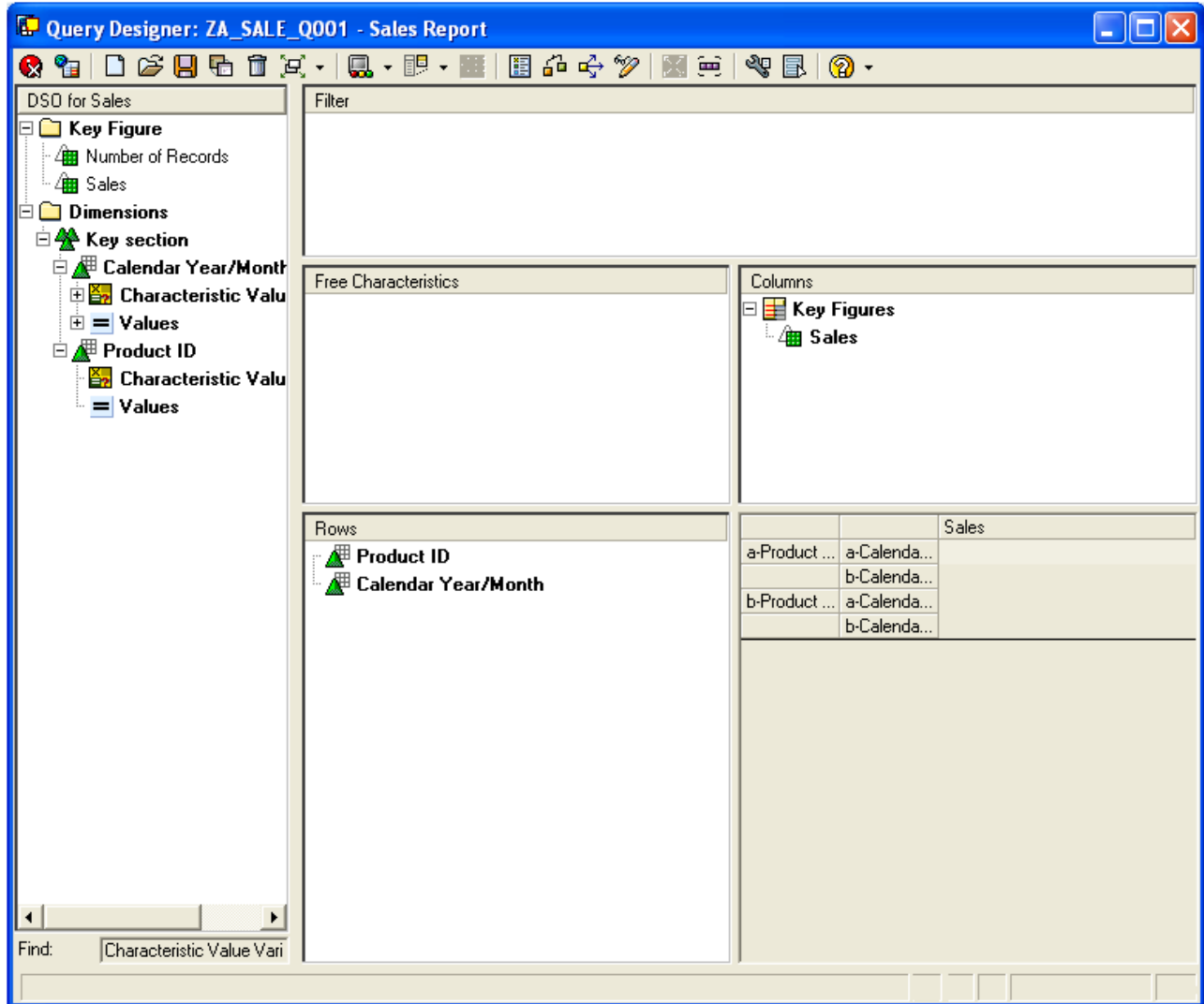
We can also create a variable for the Key Figures.

## 5 Step By Step Procedure

### 5.1 Create Query on the Sales Data Target:

Go to the Query designer and create a Query based on the DSO created. Based on our scenario lets take the Product Id and Calendar Year/Month in the Rows and Sales in the Columns as below.

Now we need to create the Eceptions and Conditions for the sales in such a way that the user should be able to provide values at the time of execution of the Query and get the desired result.



## 5.2: Create Exceptions:

Based on our Scenario, we will now create the Exceptions for the Query.

### Goto → Exceptions → New Exception

Here we will be having an option of giving values for the Exceptions. To get the desired result for our scenario, we will not go with the values in the boxes, as the values for exceptions will be given by the user before executing the report. For this reason we will go with the option of creating Variables for Exceptions. We can see that in the below screenshot.

The screenshot shows the 'Defining Exceptions' dialog box. The 'Description' field contains 'New Exception' and the 'Active' checkbox is checked. Under 'Evaluation for', the 'Key Figures' dropdown is set to '(Everything)'. The 'Exception Values' section features a table with columns 'From', 'To', and 'Alert Level'. To the right of the table are 'New' and 'Delete' buttons. Below the table, there are two dropdown menus, the first showing '(Nothing Defined)', and a 'Transfer' button. At the bottom, there are checkboxes for 'Variables Entry' (checked) and 'Variables Entry' (unchecked), along with 'OK' and 'Cancel' buttons.

Here we will create 2 variables for Exceptions. One will be for the “**Sales From**” Value and the other will be for “**Sales To**” Value. We can see the same in the below screen shot.

Variable for "Sales From" Value:

Type of Variable: Formula

Processing by: User Entry / Default Value

The screenshot shows the 'SAP BW Variables Editor' dialog box. It is divided into several sections: 'General Information' with fields for 'Type of Variable' (Formula), 'Variable Name' (ZVAR\_T\_1), 'Description' (Sales From), and 'Processing by' (User Entry / Default Value); 'Details' with 'Variable entry is' (Optional), a checked 'Ready for Input' checkbox, and a 'Copy personalization data from the variable' field; 'Currencies and Units' with 'Dimension ID' (Number); and 'Default Values' with an empty 'Default Value' field. At the bottom are icons for help, refresh, and delete, along with 'OK' and 'Cancel' buttons.

Variable for "Sales to" Value:

Type of Variable: Formula

Processing by: User Entry / Default Value

The screenshot shows the 'SAP BW Variables Editor' dialog box for variable ZVAR\_T\_2. It is divided into several sections: 'General Information' with fields for 'Type of Variable' (Formula), 'Variable Name' (ZVAR\_T\_2), 'Description' (Sales To), and 'Processing by' (User Entry / Default Value); 'Details' with 'Variable entry is' (Optional), a checked 'Ready for Input' checkbox, and a 'Copy personalization data from the variable' field; 'Currencies and Units' with 'Dimension ID' (Number); and 'Default Values' with an empty 'Default Value' field. At the bottom are icons for help, refresh, and delete, along with 'OK' and 'Cancel' buttons.

The final Exception will look as in the below screen shot.

Validity Area of Exception is taken as "ALL".

**Defining Exceptions**

Description: Exception for Sales  Active

Evaluation for

Key Figures: Sales

Exception Values | **Validity Area of Exception**

From	To	Alert Level
Sales From	Sales To	Bad 9

Sales From Sales To Bad 9

Variables Entry  Variables Entry

Buttons: New, Delete, Transfer, OK, Cancel

### 5.3: Create Conditions:

Based on our Scenario, we will now create the Conditions for the Query.

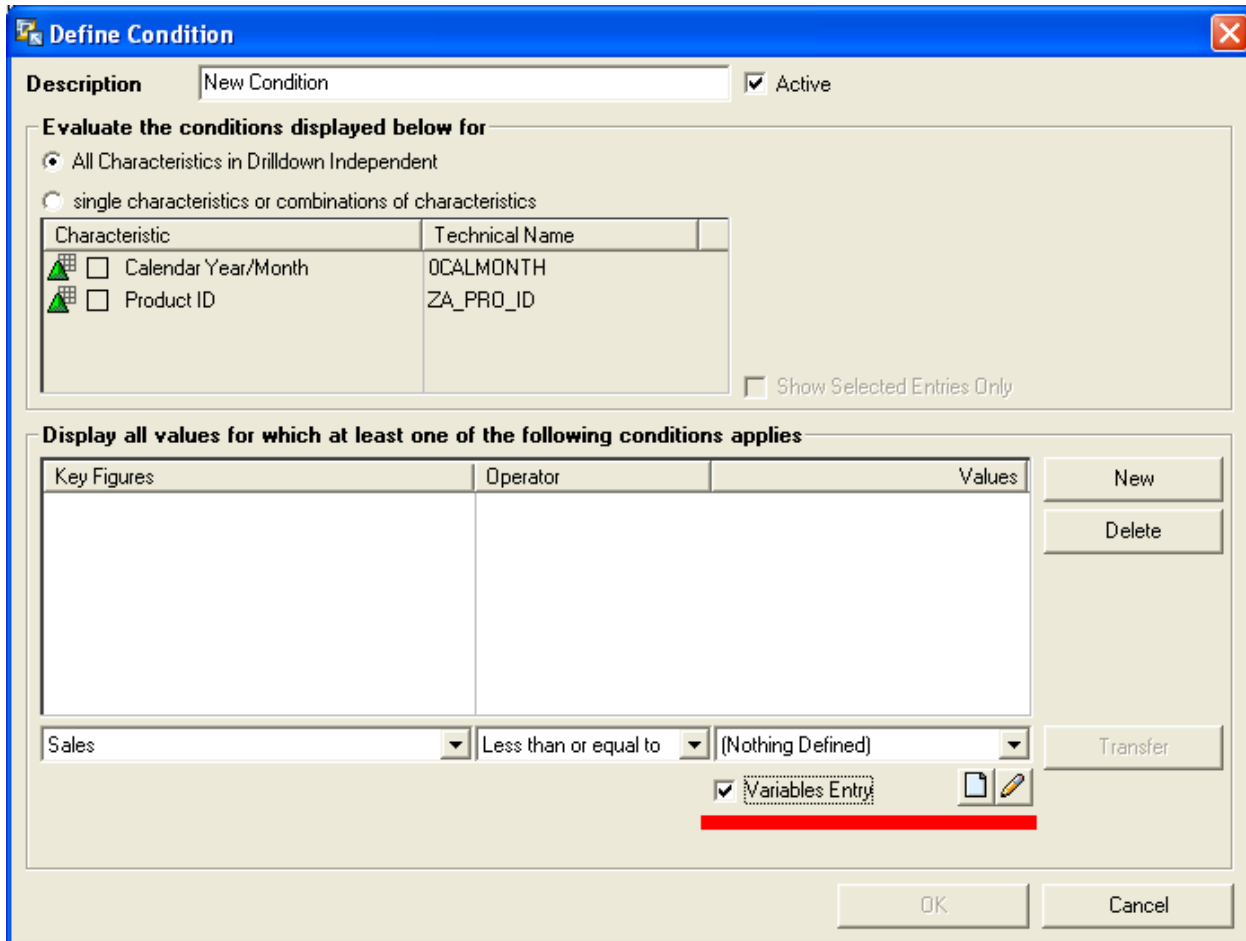
By this procedure we can also see that,

We can create a variable for the Key Figure.

Goto → Conditions → New Condition

Here we will be having an option of giving values for the Condition. To get the desired result for our scenario, we will not go with the values in the boxes, as the values for Conditions will be given by the user before executing the report. For this reason we will go with the option of creating Variables for Conditions. We can see that in the below screenshot.

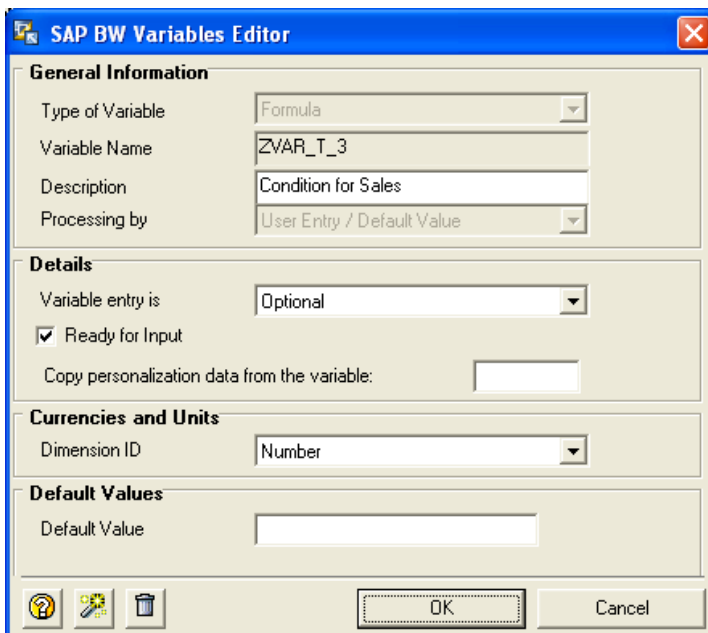
This variable will be used by the user to provide the desired value, based on which the Query result is depended. **This is nothing but a Variable for the given Key Figure.**



Here we will create a condition which suits our scenario, it will be as below:

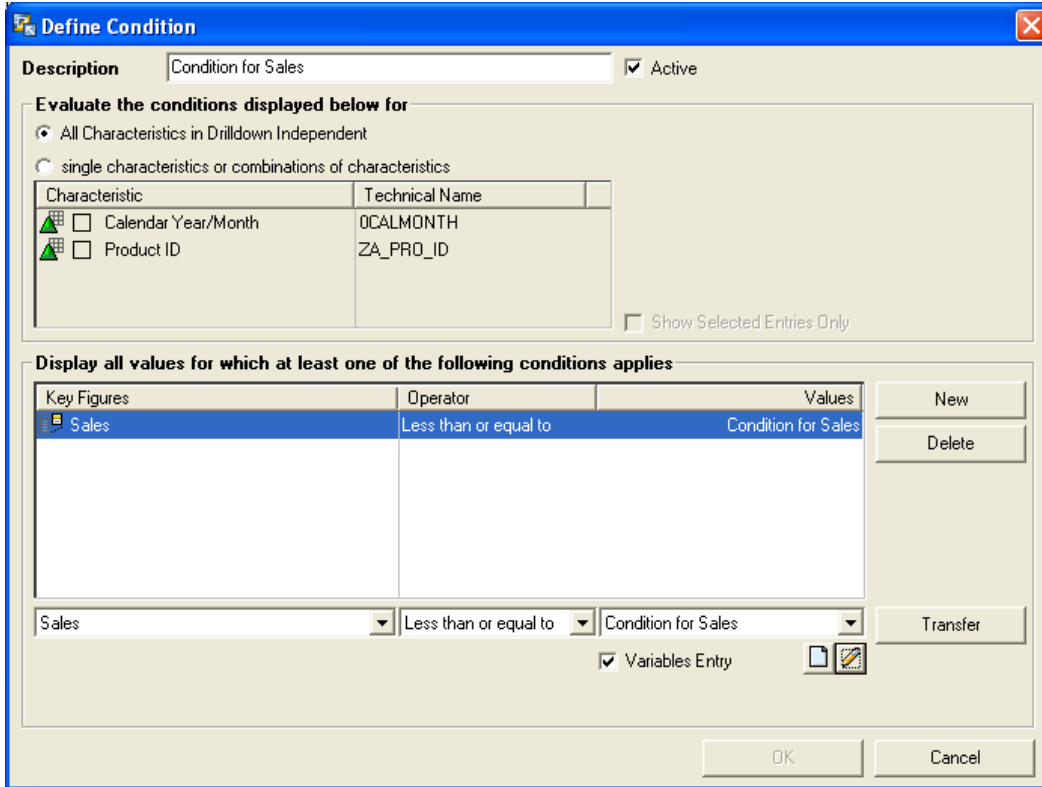
Type of Variable: Formula

Processing by: User Entry / Default Value

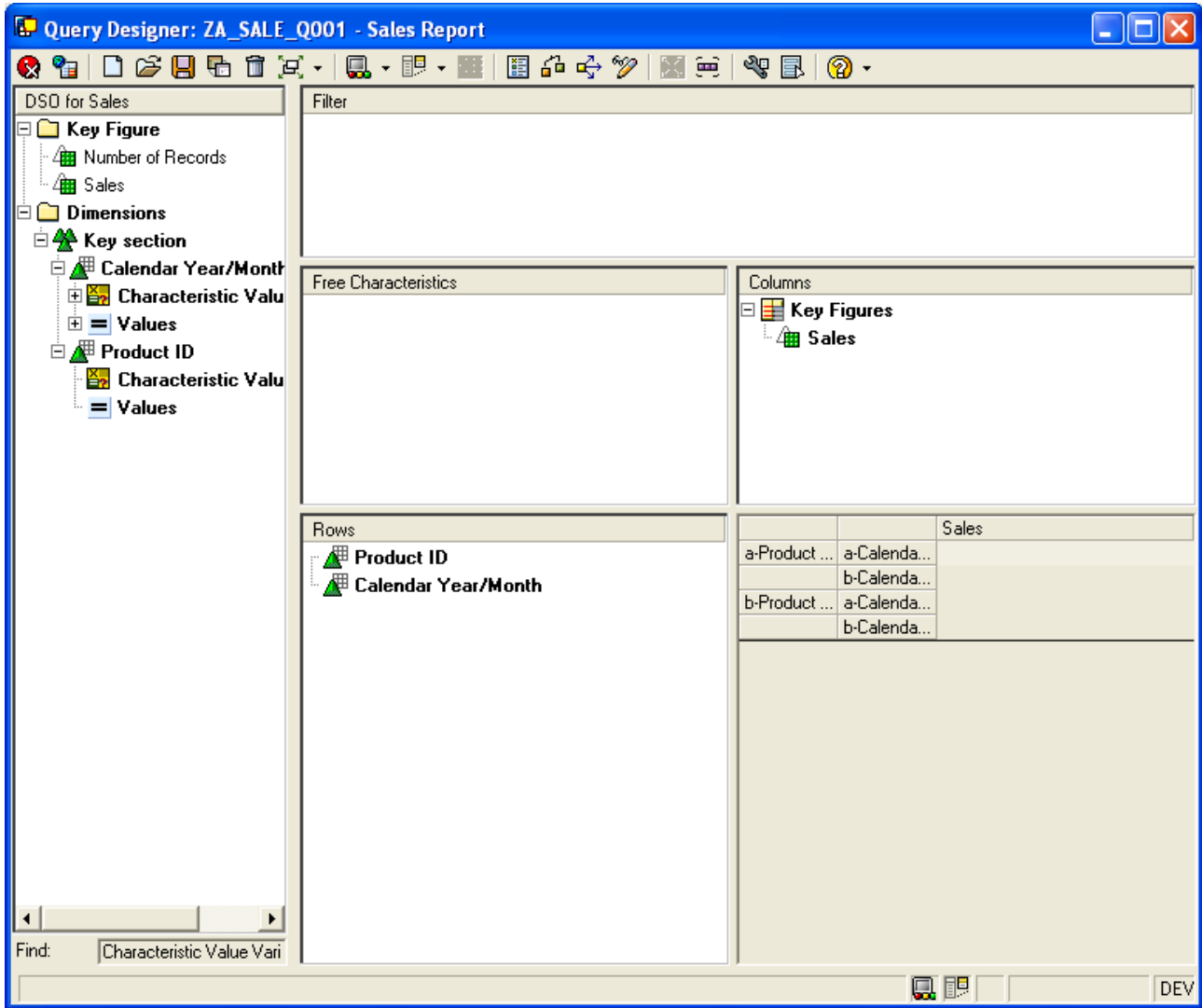




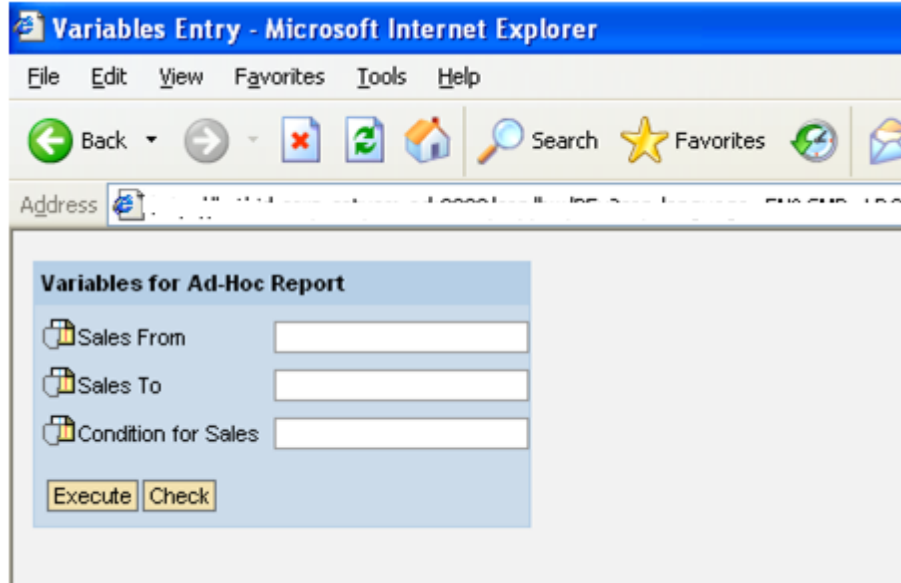
The final Condition will look as in the below screen shot. To match our scenario we will consider the Operator for the Condition as **“Less than or Equal to”**.



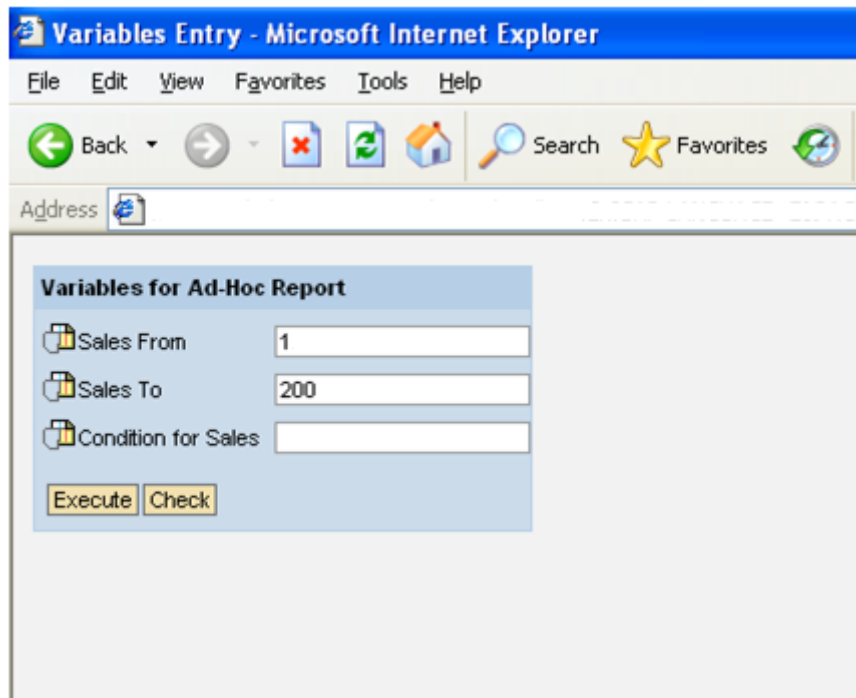
Save the Exceptions, Conditions created and save the Query and then Execute:



### 5.4 Result of the Query:



Provide the Desired Values in the Variables for Exceptions and Execute the Report.



### Report Result after Execution:

Here you can check the color coding will match with the values given in the Variable for the Exceptions. As per the requirement the sales which are less than or equal to 200 should be shown in RED.

**Sales Report - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Address  Go Links

**Data Analysis** Graphical display Information Information Broadcasting

**Sales Report** Validity of Data: 01.09.2010 15:40:13

Save View Bookmark Variable Screen Exceptions and Conditions Notes Export to Excel Export to CSV

**Rows**

Calendar Year/Month

**Columns**

Key Figures

**Free Characteristics**

Product ID	Calendar Year/Month	Sales
10026	NOV 2010	100
10027	NOV 2010	105
10028	NOV 2010	110
10029	NOV 2010	115
10030	NOV 2010	120
10031	NOV 2010	125
10032	NOV 2010	130
10033	NOV 2010	135
10034	NOV 2010	140
10035	NOV 2010	145
10036	NOV 2010	150
10037	NOV 2010	155
10038	NOV 2010	160
10039	NOV 2010	165
10040	NOV 2010	170
10041	NOV 2010	175
10042	NOV 2010	180
10043	NOV 2010	185
10044	NOV 2010	190
10045	NOV 2010	195
10046	NOV 2010	200
10047	NOV 2010	205
10048	NOV 2010	210
10049	NOV 2010	215
10050	NOV 2010	220

Row 1 / 100

Local intranet

If you want to change the values for the Exceptions, go to the variable screen and provide the values as desired and Execute the Query, we will get the color coding as desired.

**Variables Entry - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Address

**Variables for Ad-Hoc Report**

Sales From

Sales To

Condition for Sales

Execute Check

Result of the Query:

Here you can check the color coding will match with the values given in the Variable for the Exceptions.

Sales Report - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address

Data Analysis Graphical display Information Information Broadcasting

Sales Report Validity of Data: 01.09.2010 15:40:13

Save View Bookmark Variable Screen Exceptions and Conditions Notes Export to Excel Export to CSV

Product ID	Calendar Year/Month	Sales
10026	NOV 2010	100
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10028	NOV 2010	110
10029	NOV 2010	115
10030	NOV 2010	120
10031	NOV 2010	125
10032	NOV 2010	130
10033	NOV 2010	135
10034	NOV 2010	140
10035	NOV 2010	145
10036	NOV 2010	150
10037	NOV 2010	155
10038	NOV 2010	160
10039	NOV 2010	165
10040	NOV 2010	170
10041	NOV 2010	175
10042	NOV 2010	180
10043	NOV 2010	185
10044	NOV 2010	190
10045	NOV 2010	195
10046	NOV 2010	200
10047	NOV 2010	205
10048	NOV 2010	210
10049	NOV 2010	215
10050	NOV 2010	220

Row 1 / 100

Now we will check the Variable for Conditions:

The operator for the condition we have taken is : "Less than or Equal to", so depending on the value provided in the Variable the Query result will depend.

Variables Entry - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address

Variables for Ad-Hoc Report

Sales From

Sales To

Condition for Sales

Execute Check

**Sales Report - BEx Ad-hoc Analysis**

Validity of Data: 01.09.2010 15:40:13

Save View | Bookmark | Variable Screen | Exceptions and Conditions | Notes | Export to Excel | Export to CSV

Product ID	Calendar Year/Month	Sales
10026	NOV 2010	100
10027	NOV 2010	105
10028	NOV 2010	110
10029	NOV 2010	115
10030	NOV 2010	120
10031	NOV 2010	125
10032	NOV 2010	130
10033	NOV 2010	135
10034	NOV 2010	140
10035	NOV 2010	145
10036	NOV 2010	150
10075	NOV 2010	100
10076	NOV 2010	105
10077	NOV 2010	110
10078	NOV 2010	115
10079	NOV 2010	120
10080	NOV 2010	125
10081	NOV 2010	130
10082	NOV 2010	135
10083	NOV 2010	140
10084	NOV 2010	145
10085	NOV 2010	150

To execute the report with both Conditions and Exceptions with user Desired Values:

**Variables for Ad-Hoc Report**

Sales From:

Sales To:

Condition for Sales:

Execute | Check

**Sales Report** Validity of Data: 01.09.2010 15:40:13

Save View | Bookmark | Variable Screen | Exceptions and Conditions | Notes | Export to Excel | Export to CSV

Product ID	Calendar Year/Month	Sales
10026	NOV 2010	100
10027	NOV 2010	105
10028	NOV 2010	110
10029	NOV 2010	115
10030	NOV 2010	120
10031	NOV 2010	125
10032	NOV 2010	130
10033	NOV 2010	135
10034	NOV 2010	140
10035	NOV 2010	145
10036	NOV 2010	150
10075	NOV 2010	100
10076	NOV 2010	105
10077	NOV 2010	110
10078	NOV 2010	115
10079	NOV 2010	120
10080	NOV 2010	125
10081	NOV 2010	130
10082	NOV 2010	135
10083	NOV 2010	140
10084	NOV 2010	145
10085	NOV 2010	150

In this way we can give option to the user to provide values for the Conditions and Exceptions and get the desired output for the report. We can also create variables for the Key Figures.

## **Related Content**

[http://help.sap.com/saphelp\\_bw30b/helpdata/en/73/702e39074dc93de10000000a114084/content.htm](http://help.sap.com/saphelp_bw30b/helpdata/en/73/702e39074dc93de10000000a114084/content.htm)

[http://help.sap.com/saphelp\\_bw30b/helpdata/en/73/702e39074dc93de10000000a114084/frameset.htm](http://help.sap.com/saphelp_bw30b/helpdata/en/73/702e39074dc93de10000000a114084/frameset.htm)

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