priority

Report Generators Script

Clip Link: http://www.priority-software.com/eshbel.com/Movie_Search/Report_generators_clip.htm
Note: Yellow highlights indicate action instructions.

*HEADINGS ARE NOT MEANT TO BE READ ALOUD.

BEFORE YOU BEGIN: MAKE SURE AT LEAST ONE CUSTOM SALES REPORT IS DEFINED (X).

Introduction (00:00-00:25)

This clip demonstrates the use of ***Priority***'s report generators to design and produce customized reports. We will also explain how to[SHOW SLIDE WITH THESE BULLETS]:

- save a customized report for future use,
- share the report with other users
- run the report for different types of input data,
- add the report to a menu, and
- use the report to generate an SQL query.

Creating a Customized Report (00:26-01:55)

The various Report Generators are listed under the relevant sub-menu of the **Executive Reports** module[CLICK THROUGH TO DISPLAY OPTIONS]. In this case, we're going to create a report based on sales data, using the Sales Report Generator[OPEN **Executive Reports > Sales > Sales Report Generators**]. We'll use this report to analyze which customers tend to order more expensive items, and to examine the gross income generated by each sold item, after deducting commissions.

The screen that opens is divided into two panes. The left pane explains the different operations that can be performed in this form[POINT TO **Explanations**]. In the right pane, you can choose to design a new report from scratch[POINT TO **New**], or you can copy an existing report[X] and then edit it[SELECT **Copy of X**, THEN CLICK **Edit**] to suit your needs.

As you can see, the next screen is divided into two panes. The left pane displays a list of **Selected Fields**[HIGHLIGHT] that can be included in the report. Report columns are divided into categories and appear in various colors. This screen is used to add columns to the report and determine the order in which they appear. Additional report and column definitions will be recorded in the next screen.

Adding Columns to the Report (01:56-04:43)

Use the mouse to drag any columns you want to include in the report[INCLUDE **Customer Number**, **Branch Code**, **Part Description**, **Sum**, **Quantity, Rep Commission** and **Month** COLUMNS] into the **Displayed Fields** pane, on the right.

The display order of the columns in the report is determined by their order in the list, from the top down, so you can rearrange the order of your chosen columns by dragging them higher or lower within the list. You can also drag columns to positions that are already "taken", and their order will be adjusted accordingly. Notice the color coding[POINT TO A DISPLAYED SUM COLUMN], which now helps you to quickly identify the category of each column[POINT TO A SUM COLUMN IN THE **Selected Fields** PANE].
When the report is based on a document such as an order or invoice, you can display each line in the document as a separate line in the report by including the appropriate line column (e.g., **Document Line**).
Since such documents can include parts whose description can be changed, you may want to select the **Multiple Part Desc.** column rather than the **Part Description** column, so that the report displays the revised part description rather than the original one.
To remove columns from the report, drag them back into the **Selected Fields** pane.[REMOVE THE **Part Description** COLUMN]
The report can also include a custom column, known as an expression column. Expression columns are used to perform mathematical operations on column values, by combining column ID numbers (displayed in the following screen) with standard mathematical symbols and predefined operations such as SUM, MAX, MIN and AVG.
In our example, we'll create two such columns: we'll use one to display the average price of the parts sold to each customer, and we'll use the second to examine the sum we expect to receive for each sold item, after deducting the sales commission payable for that item.
Values in the first column will be calculated based on the sums and quantities included in the report for each customer and divide this value by the sum of all quantities in the report for the same customer. Values in the second column will be calculated based on the sum in each row and the sales rep commission appearing in the same row.
So, we'll need to include two **Add Expression** columns in the report[DRAG TO THE **Displayed Fields** AREA]. We'll also need to make sure that the columns to be represented in the expressions[POINT TO **Sum**, **Quantity** AND **Rep Commission**] have been added to the **Displayed Fields** area. The expressions themselves will be defined in the next screen.
When you have finished selecting columns, click **Next** to continue to the next screen.

Report Definitions (04:44-07:15)
In the **Report Definitions** pane, let's change the report's name to "Big Ticket Sales & Commissions", and then define a few other general report parameters.
For starters, let's flag the report as **In Use**, so that it will appear in the generator's List of Reports. If you want the report to be available to all system users and not just for your own personal use, flag it as **General Use**.
Now let's look at the definitions for the report's columns. The titles of the selected report columns are listed in the **Description** column[POINT].
As you can see, some of the columns are already flagged as input to the report; however, you can remove these flags or flag additional columns as you see fit. All input columns will also appear in the report itself, unless you flag them as **Hidden**[E.G., HIDE **Branch Code**].

Next, let's group the report data by customer number, using the **Field in Title** attribute[FLAG THE **Field in Title** ATTRIBUTE FOR THE **Customer Number** COLUMN]. This attribute is generally assigned to the first column in a report, but it can be assigned to additional report columns, as long as it is also assigned to the preceding column. Consequently, the flagged columns will *not* appear together with other report columns when you run the report. In this example, each customer number will appear as a horizontal sub-heading, and data for each customer will appear under the corresponding sub-heading. Grouping report data by customer also enables us to perform calculations on report columns for each customer individually, as we'll see in a moment.
You can also choose to display the report as a tabular report. To do so, select the column that will appear in the X axis of the table[FLAG AS **Field in X Axis**]. Sum and quantity columns will appear automatically in the table, and the remaining columns will appear in the Y axis. If two or more sum/quantity columns appear in the table, you can determine whether they appear side by side (horizontal display) or one under the other (vertical display)[POINT TO **Vertical Tbl Display** OPTION]. We'll run the report using the default horizontal display in just a moment and see how this looks.

Defining an Expression Column (07:16-09:35)
Now let's define the expression column. Let's call this column: **Average Part Price per Customer[Avg Part Price/Cust]**. To calculate the average part price, we need to add up all sums included in the report for each customer and divide this value by the sum of all quantities in the report for the same customer. Since report data is being grouped by customer number, we can use expression columns to calculate subtotals per customer, in each of these columns. The **Sum** column is represented by the hash or pound key, followed by the corresponding column number, in this case 140[POINT TO CORRESPONDING **Column No.** IN **Report Definitions** PANE]. Let's include a reference to this column in the **Expression** column[TYPE #140]. And now we'll use the predefined **SUM** function to calculate the sum of all values in this column[COMPLETE THE EXPRESSION: "SUM(#140)"]. In the same fashion, we'll record the sum of the ordered quantities["SUM(#62)"], and then we'll divide one by the other[COMPLETE THE EXPRESSION: "SUM(#140)/SUM(#62)"].
Let's use the second expression column to examine the sum we expect to receive for each sold item, after deducting the sales commission payable for that item; that is, the difference between the sum in each row[#140] and the rep commission appearing in the same row[-#331]. And we'll call this column **Sum After Commissions**[COMPLETE EXPRESSION SHOULD BE: #140- #331].

Running the Report (09:36-11:23)
And now we're ready to test the report and make any necessary revisions. Let's click **Run** to run the report, then enter the desired input and click **OK**. In the resulting report, you can see that report data is grouped by customer number[POINT OUT] and that the various sums for each sub-section of the data are displayed horizontally[POINT OUT].

If you want to change any of the report definitions, you can do so now by returning to the Generator, selecting the desired report &clicking **Edit** to make your changes. Let's try running the same report, but this time we'll flag the **Vertical Tbl Display** option. Once you've finished designing the report to your satisfaction,click **End** to save the report definitions and return to the main report generator screen torun the report. In the resulting report, you can see that sums are now displayed vertically[POINT OUT], rather than horizontally.
Let's exit the report generator[CLICK **X** IN THE UPPER RIGHT-HAND CORNER].

Adding a Customized Report to a Menu (11:24-12:15)
And now we're going to add the report we just defined to a ***Priority*** menu, say, the **Sales > Orders > Sales Order Reports** menu[NAVIGATE THERE]. Right-click the menu title and select **Add User-Defined Report**.
Choose the desired report type[**Sales Order Report Generator**], click **OK** and then choose the desired report.
Note that only the system manager and users in the manager's group are authorized to add user-defined reports to a menu, and these reports will subsequently appear in the menu for all users. Thereafter, the system manager can also assign privileges for the report to users who are not authorized to run the report generator.

Using a Customized Report to Generate an SQL Query (12:16-13:32)
You can also use the customized report to generate an SQL query, which can be used to retrieve data in BI tools and external programs. To do so, we'll enter the **Customized Rep. Generator-Query** form[MENU PATH: **Executive Reports > Executive Report Maintenance**] and retrieve the desired report. Next, we'll select **Create SQL Query** from the list of Direct Activations. When the program finishes running, a window opens displaying the resulting query. This query can be saved to the location of your choice and later revised as necessary.

Deleting a Customized Report (13:33-14:00)
If you want to delete a customized report at any point, simply run the desired report generator, select the report in question and click **Delete**[THEN CLOSE THE REPORT GENERATOR].
This concludes our demonstration of ***Priority***'s customized report generators.

Related Documentation

- Business Intelligence clip
- Navigation clip
- User Privileges clip
- User Interface Guide