



## Financial Report Tutorials Sorted Variance



# 2

chapter

## Sorted Variance

The Sorted Variance report displays actual, budgeted, and the respective variance amount for all revenue and expense accounts.

## Introduction

The following tutorial assumes you have completed the *Quick start for new users* tutorial which starts on page 48 of the UserGde.pdf file included in the Docs folder of your product CD.

## Creating the report

Create a new **Blank Report**.  
The database expert dialog appears.

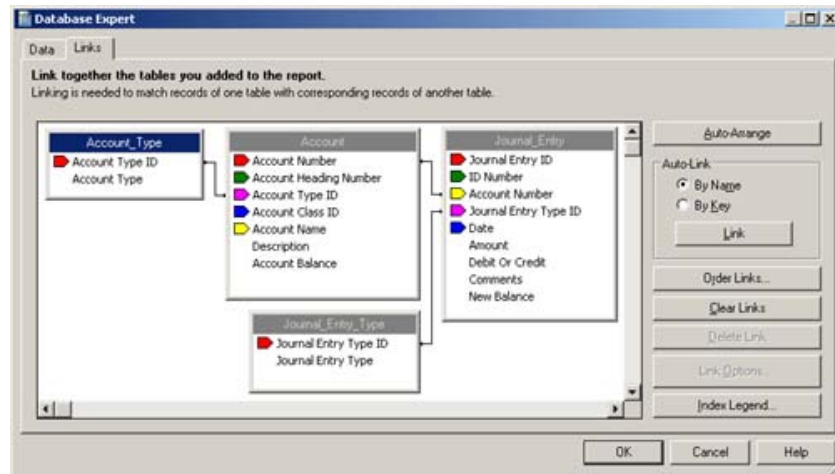
## Selecting a database to use

The next step in creating a report is to select a database.

### ► To select a database

1. In the Database Expert dialog box, expand the **Create New Connection** folder.
2. Double click the **ODBC(RDO)** folder. A list of all data sources is shown.
3. From the list, select the **Xtreme Sample Database 2005** data source and click **Finish**. You will now see a list of all available tables from the Xtreme Sample Database 2005 data source.
4. Use the Ctrl-click combination to select the Account, Account Type, Journal Entry, and Journal Entry Type tables and click the > arrow to add it to the Selected Tables list. Click **OK**. The links diagram is shown.

5. Ensure your links are setup as shown in the image below and click **OK**.



## Creating commands

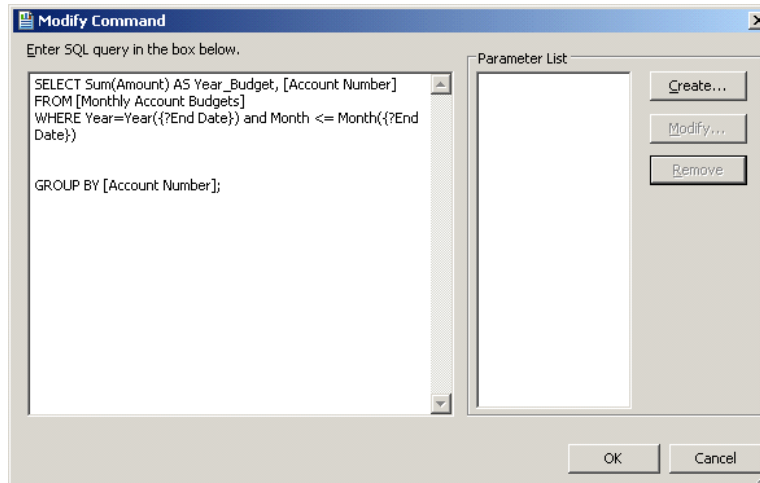
The Sorted Variance report makes use of two command objects. A command object is simply an SQL expressions used to return data.



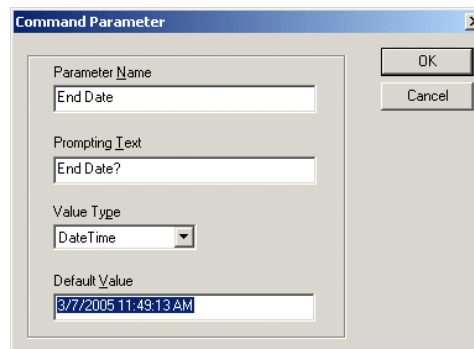
### ► To create a command

1. Select Database Expert from the Expert toolbar.
2. Select **Add Command** from the Available Data Sources tree under the existing Xtreme Sample Database 2005 connection, The Add Command To Report windows is shown.

3. Using the image below as reference , create the following query then click Create...



4. The Command Parameter window is now shown. Use the image below to create the required Parameter. Click OK.



5. You are now prompted to enter a format and value for the **End Date** parameter. Once you have entered these values click OK.

6. Create the second query using the images below. When finished Click OK.  
SQL Command::

Command Parameter. Must be the same as the first parameter!

The 'Command Parameter' dialog box is shown with the following fields:

- Parameter Name:** End Date
- Prompting Text:** End Date?
- Value Type:** DateTime
- Default Value:** 3/7/2005 11:50:56 AM

Buttons: OK, Cancel

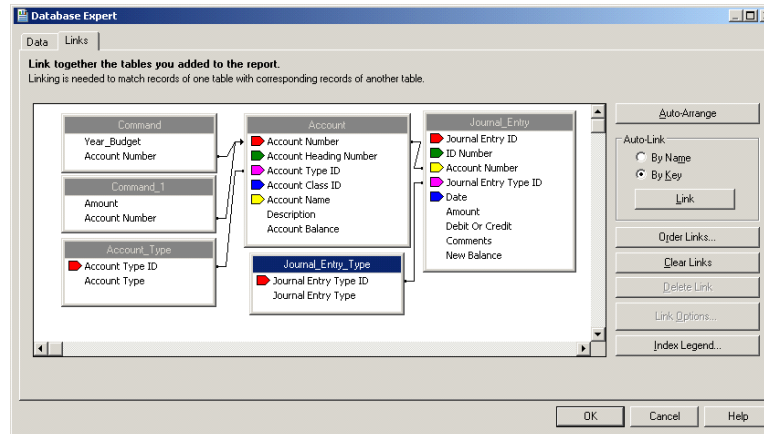
Enter Values

The 'Enter Values' dialog box is shown with the following fields:

- End Date?** (Prompt)
- Please enter DateTime in format "yyyy-mm-dd hh:mm:ss".** (Instruction)
- Value Type:** 2005-03-07 11:54:06
- Enter a Value:** 2005-03-07 11:54:06

Buttons: OK, Cancel

7. Once the commands are created, click **OK**. The linking diagram is shown.
8. Verify that the links are consistent with the diagram shown below. If necessary, create the appropriate links by dragging fields from one table to the matching field in another table.  
The following links should be shown:
  - Account.Account Type ID to Account Type.Account Type ID
  - Account.Account Number to Journal Entry.Account Number
  - Journal Entry.Journal Entry Type ID to Journal Entry Type.Journal Entry Type ID
  - Command.Account Number to Account.Account Number
  - Command\_1.Account Account Number to Account.Account Number
9. Once the links have been verified Click OK.



## Setting up the report date



When the SQL commands were created a new Parameter Field named **End Date** was created. Check the Parameter Fields in the Field Explorer to ensure this field is present.

## Setup selection criteria

A selection criteria is required to restrict the range of journal entries included in the report. For our report we need to restrict the journal entries to those which fall between January 1st of the **End Date** year (for YTD calculations) and the **End Date** parameter. For example, if our **End Date** parameter has a value of November 14, 2005 then we will restrict journal entries to those between January 1, 2005 and November 14, 2005.

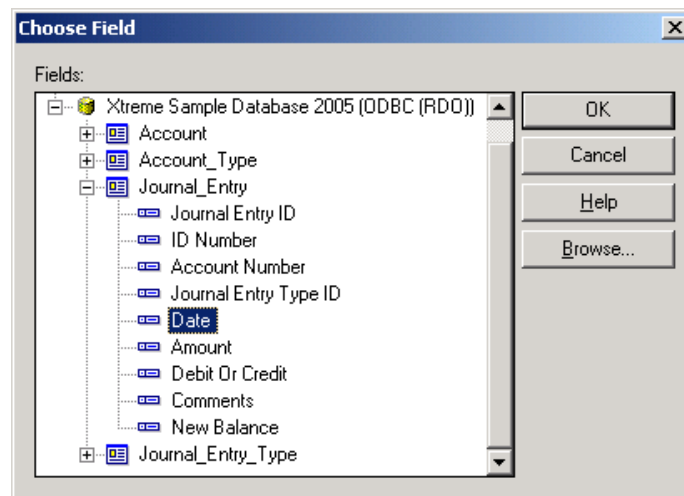
In addition to restricting journal entries based on dates, we will also restrict journal entries based on type. On January 1st of each year the process of closing the books is performed. These closing entries entail closing all revenue and expense accounts and making the necessary adjustment to Retained Earnings to reflect a net gain or net loss. We don't want the closing entries to be included as part of our report and therefore we will restrict such entries.

Finally, we will also restrict journal entries to only display Revenue and Expense accounts.

► **To create selection criteria**



1. Click the Select Expert from the Expert Toolbar. The Choose Field dialog is shown. Select Journal Entry.Date and click OK.



2. You will now see the Select Expert dialog. Make sure the Journal Entry.Date tab is chosen. From the drop down list, select 'formula:'. A text box for entering formulas is shown.

In this text box we will enter our formula to restrict journal entries based on dates.

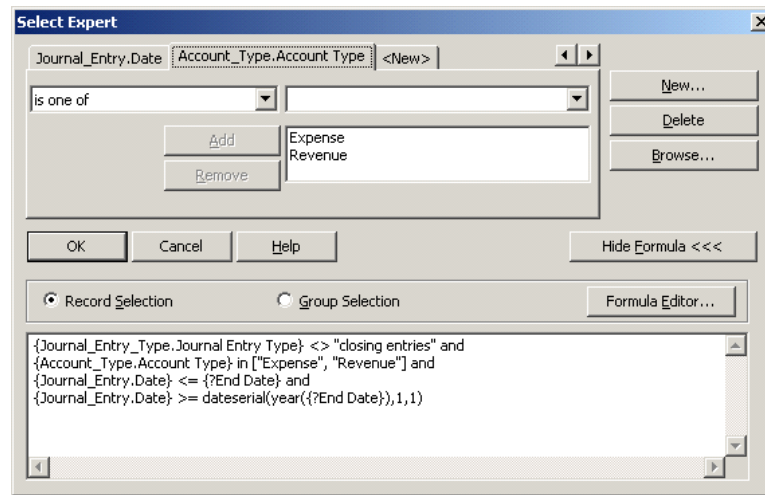
In the text box enter the following formula:

```
{Journal_Entry.Date} <= {?End Date} and  
{Journal_Entry.Date} >= dateserial(year({?End Date}),1,1)
```

- **dateserial** is an SQL function which accepts three parameters (year, month, day) and returns a valid date.
  - **year** is an SQL function which accepts a date and returns the year portion only.
3. With journal entry dates restricted, we will now add to our Select Expert criteria to restrict closing entries. To do so, while still in the Select Expert dialog, click the New tab.
  4. From the Choose Field dialog select Journal Entry Type.Journal Entry Type. Click OK.



5. From the drop down list select 'is not equal to'. A second drop down list to the right appears.
6. From this second list select 'closing entries'..
7. Finally we will restrict our entries to only Revenue and Expense Accounts. Click the <New> tab. From the fields tree select Account Type.Account Type. Click OK.
8. From the drop down list select 'is one of'. A second drop down list is shown to the right. From this list select 'Revenue' and 'Expense'.
9. To display the entire selection criteria click the 'Show Formula >>>' button.
10. Verify your selection criteria with the image below and click **OK**.



## Setup groupings

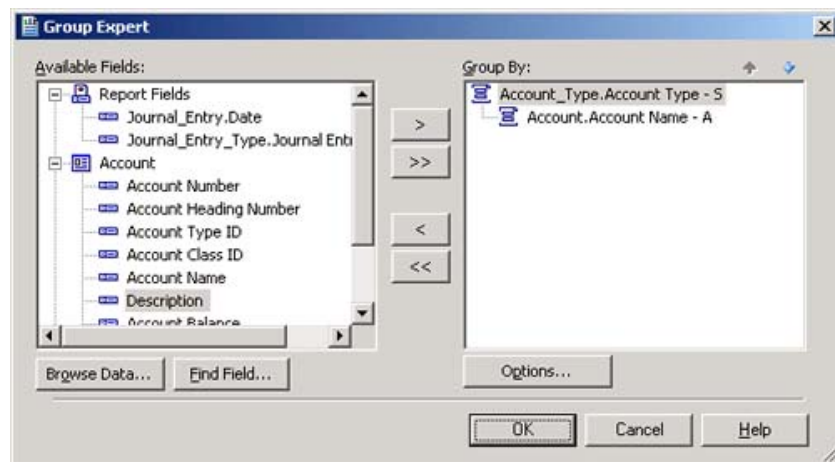
We will be grouping our records based on Account Type (Asset, Liability, Equity, Revenue, or Expense) and Account Name.



### ► Create report groupings

1. Click the Group Expert from the Expert toolbar. The Group Expert is shown.
2. From the Available Fields tree, select Account Type.Account Type and click the > arrow.
3. Click the Options... button. The Change Group Options dialog is shown.

4. From the second drop down list select 'in specified order'.
5. From the Named Group: list select the following values in order (Revenue, Expense). Click OK.
6. Create a second group by selecting Account.Account Name from the Available Fields tree and clicking the > arrow. The default sort order is ascending which is fine.
7. Verify your groupings with the image below. Click OK.



## Create formula fields

The Sorted Variance report makes use of several formula fields. We will create each of these formula fields now and add them to our report at later stages in the tutorial.

### ► To create formula fields



1. From the Field Explorer, right-click Formula Fields and click new. The Formula Name dialog is shown.
2. Type the name of your formula and click OK. The Formula Workshop windows is shown.
3. Enter your formula in the formula editor.
4. Check the formula syntax by clicking **Check**.
5. Click the save and close button.



6. Repeat steps 1 through 5 to create the required formula fields in the table below:

| Name           | Formula  |
|----------------|--|
| month          | MonthName (Month ({?End Date}))  |
| month_balance  | if Month({Journal_Entry.Date}) = Month({?End Date})<br>then<br>if {Journal_Entry.Debit Or Credit} = 'Credit' then<br>{Journal_Entry.Amount} * -1<br>else<br>{Journal_Entry.Amount}   |
| month_variance | if {Account_Type.Account Type} = 'Revenue'<br>and {Account.Account Name} <> 'Sales Returns' then<br>(<br>{Command_1.Amount} +<br>Sum ({@month_balance}, {Account.Account Name})<br>)<br>else<br>(<br>{Command_1.Amount} -<br>Sum ({@month_balance}, {Account.Account Name})<br>) |

| Name         | Formula  |
|--------------|--|
| YTD_balance  | if {Journal_Entry.Debit Or Credit} = 'Credit' then<br>{Journal_Entry.Amount} * -1<br>else<br>{Journal_Entry.Amount}  |
| YTD_variance | if {Account_Type.Account Type} = 'Revenue'<br>and {Account.Account Name} <> 'Sales Returns' then<br>(<br>{Command.Year_Budget} +<br>Sum ({@YTD_balance}, {Account.Account Name})<br>)<br>else<br>(<br>{Command.Year_Budget} -<br>Sum ({@YTD_balance}, {Account.Account Name})<br>) |

A description of each formula is given below:

#### **month**

- Display the textual representation of the **End Date** month.

#### **YTD\_balance**

- Reverses the sign of all Credit amounts.

#### **month\_balance**

- Reverses the sign of all Credit amounts for the reporting month.

#### **month\_variance**

- Compares sum of actual amounts versus budgeted for each account for the month.

#### **YTD\_balance**

- Reverses the sign of all Credit amounts for the reporting month.

#### **YTD\_variance**

- Compares sum of actual amounts versus budgeted for each account for the year.
- Excludes the Sales Returns account.

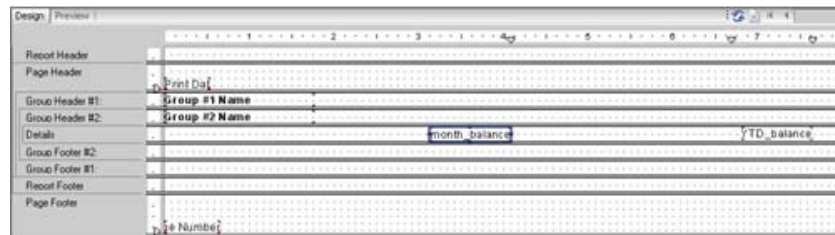
## Adding fields to the report

Now that we have specified our selection criteria through the Select Expert, set up our groupings using the Group Expert, and created our Formula Fields using the Formula Workshop we will begin adding fields to our report.

Prior to adding fields to the report, it is recommended that you set your page orientation to landscape.

► **To add fields to the report**

1. Drag the YTD\_balance field into the right side of the details section.
2. Drag the month\_balance field into the details section to the left of the YTD\_balance field.
3. Delete the headings which have been automatically created in the Page Header section. Your report should look like the following:



4. Right click month\_balance and choose Insert > Summary. The Insert Summary dialog is shown.
5. For Summary Location select Group #2 and click OK.
6. Right click YTD\_balance and choose Insert > Summary. The Insert Summary dialog is shown.
7. For Summary Location select Group #2 and click OK.

8. Hide (Drill-Down OK) the Details section.  
Your report should look like the following:

| Report Header    | Print Date    |
|------------------|---------------|
| Group Header #1: | Group #1 Name |
| Group Header #2: | Group #2 Name |
| Details          | month_balance |
| Group Footer #2: | month_balance |
| Group Footer #1: | YTD_balance   |
| Report Footer    | Page Number   |

9. Move the Group #2 Name field from the Group Header #2 section down to the Group Footer #2 section.
10. Remove the bold formatting applied to the Group #2 Name field and the Group #2 summary fields.
11. Suppress (No Drill-Down) the Group Header #2 Section.
12. Drag Command\_1.Amount into the Group Footer #2 section to the right of the month\_balance summary field.
13. Drag Command.Year\_Budget into the Group Footer #2 section to the right of the YTD\_balance summary field.
14. Drag the month\_variance field into the Group Footer #2 section to the right of the Command\_1.Amount field.
15. Drag the YTD\_variance field into the Group Footer #2 section to the right of the Command.Year\_Budget field.  
Your report should look like the following:

| Report Header    | Print Date    |
|------------------|---------------|
| Group Header #1: | Group #1 Name |
| Group Header #2: | Group #2 Name |
| Details          | month_balance |
| Group Footer #2: | month_balance |
| Group Footer #1: | YTD_balance   |
| Report Footer    | Page Number   |

16. Drag the Journal Entry.Journal Entry ID field into the details section offset by the left edge by a 1/2 inch. Delete the column heading which has been created in the Page Header section.

17. Drag the Journal Entry.Date field into the details section to the right of the Journal Entry ID field. Delete the column heading which has been created in the Page Header section.
18. The next step will be to create column headings for our report data. Drag the @month Formula Field from the Field Explorer into the Page Header section. Size the heading so that it spans the three month bound columns.
19. For the second column heading, add a text field to the Page Header section with the text "YTD". Size the heading so that it spans the three YTD bound columns.
20. Format the two column headings fields to show text as bold, aligned to the center with a single line bottom border.

## Reviewing your work

Now let's see how the report looks with the fields in place.



1. Click **Print Preview** on the standard toolbar to activate the preview tab. The screen should look similar to this:

|                            | January        |              |               | YTD            |              |               |
|----------------------------|----------------|--------------|---------------|----------------|--------------|---------------|
|                            | Actual         | Budget       | Variance      | Actual         | Budget       | Variance      |
| <b>Expense</b>             |                |              |               |                |              |               |
| Accounting & Legal         | \$1,445.12     | \$1,000.00   | (\$445.12)    | \$1,445.12     | \$1,000.00   | (\$445.12)    |
| Amortization Expense (Buil | \$2,045.94     | \$2,045.94   | \$0.00        | \$2,045.94     | \$2,045.94   | \$0.00        |
| Amortization Expense (Mac  | \$2,134.68     | \$2,134.68   | \$0.00        | \$2,134.68     | \$2,134.68   | \$0.00        |
| Bank Charges               | \$19.85        | \$14.08      | (\$5.77)      | \$19.85        | \$14.08      | (\$5.77)      |
| Bikes (Competition) Cost   | \$86,043.80    | \$50,738.77  | (\$35,305.03) | \$86,043.80    | \$50,738.77  | (\$35,305.03) |
| Bikes (Hybrid) Cost        | \$7,166.95     | \$9,949.37   | \$2,782.42    | \$7,166.95     | \$9,949.37   | \$2,782.42    |
| Bikes (Kids) Cost          | \$1,621.82     | \$2,308.22   | \$686.40      | \$1,621.82     | \$2,308.22   | \$686.40      |
| Bikes (Mountain) Cost      | \$18,719.30    | \$27,731.59  | \$9,012.28    | \$18,719.30    | \$27,731.59  | \$9,012.28    |
| Courier & Postage          | \$329.51       | \$99.86      | (\$229.65)    | \$329.51       | \$99.86      | (\$229.65)    |
| Gloves Cost                | \$348.53       | \$369.09     | \$20.56       | \$348.53       | \$369.09     | \$20.56       |
| Helmets Cost               | \$1,585.71     | \$1,013.93   | (\$571.78)    | \$1,585.71     | \$1,013.93   | (\$571.78)    |
| Insurance                  | \$1,415.93     | \$1,792.86   | \$376.93      | \$1,415.93     | \$1,792.86   | \$376.93      |
| Interest Expense           | \$2,051.03     | \$2,051.03   | \$0.00        | \$2,051.03     | \$2,051.03   | \$0.00        |
| Internet                   | \$120.34       | \$80.40      | (\$39.94)     | \$120.34       | \$80.40      | (\$39.94)     |
| <b>Revenue</b>             |                |              |               |                |              |               |
| Bike Sales - Competition   | (\$187,302.75) | \$193,160.46 | \$5,857.71    | (\$187,302.75) | \$193,160.46 | \$5,857.71    |
| Bike Sales - Hybrid        | (\$15,764.61)  | \$1,387.85   | (\$14,376.76) | (\$15,764.61)  | \$1,387.85   | (\$14,376.76) |
| Bike Sales - Kids          | (\$3,547.69)   | \$4,385.28   | \$837.59      | (\$3,547.69)   | \$4,385.28   | \$837.59      |
| Bike Sales - Mountain      | (\$40,856.24)  | \$42,778.82  | \$1,922.58    | (\$40,856.24)  | \$42,778.82  | \$1,922.58    |
| Sales Gloves               | (\$765.98)     | \$656.37     | (\$109.61)    | (\$765.98)     | \$656.37     | (\$109.61)    |
| Sales Helmets              | (\$3,506.74)   | \$4,936.60   | \$1,429.86    | (\$3,506.74)   | \$4,936.60   | \$1,429.86    |
| Sales Locks                | (\$741.26)     | \$1,393.32   | \$652.06      | (\$741.26)     | \$1,393.32   | \$652.06      |
| Sales Returns              | \$14,336.10    | \$1,113.79   | (\$13,222.31) | \$14,336.10    | \$1,113.79   | (\$13,222.31) |
| Sales Saddles              | (\$1,088.66)   | \$1,069.96   | (\$18.70)     | (\$1,088.66)   | \$1,069.96   | (\$18.70)     |

2. Note that Revenue accounts which are credit accounts are shown as negative amounts. In order to show these values as positive we will need to apply conditional formatting on the two sum fields (sum of month\_balance, sum of YTD\_balance).
3. To apply conditional formatting, right-click sum of month\_balance and select Format Field.
4. On the Number tab click Customize... button.
5. Click the Reverse Sign for Display check box and click the associated Formula Button. The Formula Workshop is shown. Type the following into the Formula Editor and click the Save and Close button:

```
{Account_Type.Account Type} = 'Revenue'  
and {Account.Account Name} <> 'Sales Returns'
```

6. Repeat step 3 to 5 for sum of YTD\_balance
7. When you are finished reviewing the report, return to the **Design** tab to correct any mistakes.

## Completing the report

Now that the report has been built to display the correct data a report title, report date, and a company logo can be added.

### ► To add a report title and report date


1. Expand the Page Header section to be approximately 2 inches in height.
2. Create a new text field centered in the Page Header section. Enter the text "Xtreme Mountain Bikes" in the new text field.
3. Create another text field with the text "Variance Analysis". Place this text field in the Page Header section directly beneath the "Xtreme Mountain Bikes" text field.
4. Create another text field and add it to the Page Header section directly beneath the "Variance Analysis" text field. In this text field type "For the months ending ".
5. Drag the **End Date** parameter field anywhere into the Page Header section.
6. Right click the **End Date** field and click Format Field: The Format Editor is shown. Select 03/01/1999 as the Date and Time format and click OK.
7. Drag the **End Date** field into the text field with the text "For the months ending ".





► To add a company logo to the report

1. While on the **Design** tab, click **Insert Picture** on the Insert Tools toolbar.
  2. Choose a bitmap logo (.bmp) file and click **Open**.
  3. Position the object frame in the upper right-hand corner of the Report Header (RH) section of the report.
  4. Click the Preview tab once again.
- Note: You may have to increase the page size in order to display all data properly. Your report should now look like the following:

|                  |             |             |               |             |             |               |
|---|-------------|-------------|---------------|-------------|-------------|---------------|
| <b>Xtreme Mountain Bikes</b><br><b>Variance Analysis</b><br><b>For the Months Ending 01/31/2005</b> |             |             |               |             |             |               |
|   | January     |             |               | YTD         |             |               |
|   | Actual      | Budget      | Variance      | Actual      | Budget      | Variance      |
| Expense   |             |             |               |             |             |               |
| Accounting & Legal  | \$1,445.12  | \$1,000.00  | (\$445.12)    | \$1,445.12  | \$1,000.00  | (\$445.12)    |
| Amortization Expense (Building)   | \$2,045.94  | \$2,045.94  | \$0.00        | \$2,045.94  | \$2,045.94  | \$0.00        |
| Amortization Expense (Machinery)  | \$2,134.68  | \$2,134.68  | \$0.00        | \$2,134.68  | \$2,134.68  | \$0.00        |
| Bank Charges  | \$19.85     | \$14.08     | (\$5.77)      | \$19.85     | \$14.08     | (\$5.77)      |
| Bikes (Competition) Cost  | \$86,043.80 | \$50,738.77 | (\$35,305.03) | \$86,043.80 | \$50,738.77 | (\$35,305.03) |
| Bikes (Hybrid) Cost   | \$7,166.95  | \$9,949.37  | \$2,782.42    | \$7,166.95  | \$9,949.37  | \$2,782.42    |
| Bikes (Kids) Cost   | \$1,621.82  | \$2,308.22  | \$686.40      | \$1,621.82  | \$2,308.22  | \$686.40      |
| Bikes (Mountain) Cost   | \$18,719.30 | \$27,731.59 | \$9,012.28    | \$18,719.30 | \$27,731.59 | \$9,012.28    |
| Courier & Postage   | \$329.51    | \$99.86     | (\$229.65)    | \$329.51    | \$99.86     | (\$229.65)    |
| Gloves Cost   | \$348.53    | \$369.09    | \$20.56       | \$348.53    | \$369.09    | \$20.56       |
| Helmets Cost  | \$1,585.71  | \$1,013.93  | (\$571.78)    | \$1,585.71  | \$1,013.93  | (\$571.78)    |
| Insurance   | \$1,415.93  | \$1,792.86  | \$376.93      | \$1,415.93  | \$1,792.86  | \$376.93      |
| Interest Expense  | \$2,051.03  | \$2,051.03  | \$0.00        | \$2,051.03  | \$2,051.03  | \$0.00        |
| Internet  | \$120.34    | \$80.40     | (\$39.94)     | \$120.34    | \$80.40     | (\$39.94)     |

## Saving the report



1. Click **Save** on the Standard toolbar to save your work.  
Since this is the first time you are saving the report, the Save As dialog box appears displaying the default directory where the file will be saved.
2. Type *Sorted Variance.rpt* in the **File name** box and click **Save**.  
Your report is saved to the default directory or another directory you chose.

