COGNOS(R) Business Intelligence Series 7

Cognos Impromptu (R)

DISCOVERING IMPROMPTU

THE NEXT LEVEL OF PERFORMANCE™

Product Information

This document applies to Cognos Impromptu (R) Version 7.4 and may also apply to subsequent releases. To check for newer versions of this document, visit the Cognos Global Customer Services Web site (http://support.cognos.com).

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Table of Contents

Introduction

This document explains the essential skills needed to author Impromptu reports, set up drill-through between Impromptu reports, and customize reports to highlight important information.

Each step-by-step lesson focuses on one or two features. It culminates in the production of a report that matches one of the samples installed in the Reports folder.

For more information about using this product, visit the Cognos Global Customer Services Web site (http://support.cognos.com). For information about education and training, click the **Training** link from this site.

This document is available as an online book.

Our documentation includes user guides, tutorial guides, reference books, and other materials to meet the needs of our varied audience. An annotated list of other documentation, the *Documentation Roadmap*, is available from the Windows Start menu or the Impromptu Help menu.

Online Help

All information is available in online help. Online help is available from the help button in a Web browser, or the **Help** menu and help button in Windows products. You can also download the online help from the Cognos Global Customer Services Web site (http://support.cognos.com).

Books for Printing

The information in each online help system is available in online book format (PDF). However, the information from a given help system may be divided into more than one online book. Use online books when you want to print a document or when you want to search the whole document.

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Online books are available from the introduction to the online help for each component.

You can also read the product readme files and the installation guides directly from Cognos product CDs.

Chapter 1: Opening a Catalog and a Report

Each catalog contains all the information that Impromptu needs to generate a particular set of reports from the data in your source database. As such, the catalog contains the name and location of the database connection, the names of the selected table columns, information about any join relationships between these tables, user class access permissions, conditional filters, calculations, and prompts.

However, as a report author and user, you do not need to know how to create and maintain catalogs: that is the Impromptu administrator's job. You merely need to select the sample catalog and begin exploring.

Note that all the examples are based on the sample reports included with your installation of Impromptu and kept in the Reports folder.

Example - Open the Sample Catalog

You are the Sales Manager for a camping equipment company named the Great Outdoors Company. You want to open the catalog that lets you view or create reports related to your business.

Before you select the sample catalog, you must start Impromptu.

Tip: Double-click the **Impromptu** icon on your desktop, or click the **Start** button. If you see the **Welcome** dialog box, you can clear the **Show this dialog in the future** check box to bypass it from now on.

Steps

1. If you do not have the gosales.cat catalog open, from the **Catalog** menu, click **Open** and double-click gosales.cat in the Reports folder.

   Tip: Check the lower status bar. If you see **GOSales Catalog**, the catalog you need is currently open.
2. If the **Cognos Common Logon** dialog box appears, click **Cancel**.
3. In the **Catalog Logon** dialog box, select **Sales Department Manager** as the user class, and click **OK**.

   Note: To perform the exercises in this tutorial, you always select this user class to ensure that you are granted the appropriate access privileges. If you use your own catalog, it may have a different user class hierarchy. Ask your application developer or administrator what user class is appropriate for catalogs other than gosales.cat.
4. If a **Catalog Upgrade** dialog box appears, click **Upgrade this catalog** and click **OK**.

Example - Open an Existing Report

You are the Sales Manager for a camping equipment company named the Great Outdoors Company. You want to open an existing report that shows how much revenue each of your product types has been generating, country by country.

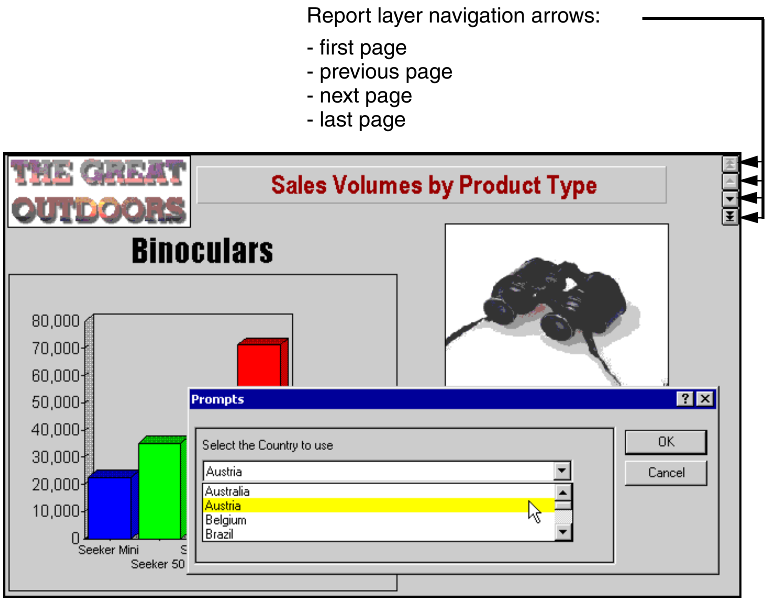
Because this sample is a prompt report, you can select one country to view its revenue. Other prompt dialog boxes require you to type in a prompt value. The prompt acts as a filter for the data so that only the information you require appears in the report.

Steps

1. From the **File** menu, click **Open**.

2. In the **Reports** folder, double-click sales_volume_by_country_(prompt).imr.
   Impromptu prompts you to select a country.
3. If a **Report Upgrade** dialog box appears, click **Upgrade this report** and click **OK** to close the dialog box.
4. Click **Australia**, and click **OK** to open the report.
   Observe that the report includes a bar graph and data table showing sales volumes for Binoculars, the first product type in the alphabetically sorted set of Great Outdoors Company products.

5. From the **Report** menu, click **Prompt** to show the **Prompts** dialog box.
6. Click **Austria**, and click **OK**.
   Note: You cannot use Ctrl+click to select several countries at once.



7. Explore the report using the navigation arrows in the top right. For example, click the single down-arrow to show the next product in the set (Climbing). Or click the double down-arrow to go to the last page of the report (Woods).

Try on Your Own

By default, this report appears in **Screen Layout** view. However, you can change the view to **Page Layout** from the **View** menu. Each template and sample report has a default layout, and that is what is stored when the file is saved. Unless you explicitly change the view and save it again, this is the view that appears whenever the file is opened.

View	Contents	Scrolling
Page layout	All the information that fits on the defined page size (the default is 8.5 x 11 inches) plus the headers and footers for the report	Buttons
Screen layout	All the information in the report, regardless of how it fits on the printed page	Scroll bars

Impromptu also offers various options for saving and printing your reports:

- From the **File** menu, click **Print**. In the **Print** dialog box, select the appropriate settings and, optionally, send the report to the printer.
- Use the **Save As** command to save the file as an .xls file type, and then open it in Microsoft Excel.
- Save your file as an .HTM file type, and then open the index.htm file to see how the report will appear when published to the Web.

Chapter 2: Creating a Grouped List Report

The easiest type of report to create is a list report, and Impromptu provides a wizard to guide you through the process.

In this lesson, you create a grouped list report like one provided in the sample set, add a filter and formatting to help users focus on key data, and then add a summary fact column to tailor the report to your business needs.

Example - Create a Grouped List Report Using the Report Wizard

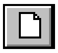
You are the Sales Department Manager for a camping equipment company named the Great Outdoors Company. The Human Resources Manager wants to develop an incentive program to reward excellence in particular sales regions.

You begin by creating a report that lists all sales staff. With the help of the Report wizard, you ensure that the data is grouped (or sorted) by position (Branch Managers and Sales Representatives at various levels).

Steps

1. If the sample catalog gosales.cat is not already opened, open the catalog now (p. 7).

   Tip: Check the lower status bar. If you see **GOSales Catalog**, the catalog you need is currently open.



2. On the toolbar, click the new button to show the **Report** wizard.

   Tip: Do not click **New** from the **File** menu. This opens the **New** dialog box instead of the **Report** wizard.
3. Type a name for your report, such as **Grouped Sales Staff Report**, and then click **Next**.
4. Ensure that **List Report** is selected, and then click **Next** to show the data item selection page.

   Each data item you select here will be presented as a column in your report.
5. Double-click the **Country** folder to open it, and then double-click the **Country** data item to add it. (You will be filtering on it, later.)
6. Double-click the **Sales Staff** folder to open it, and then double-click the following data items to add them to the **Report Columns** box:
   - **Firstname**
   - **Lastname**
   - **Position**
   - **Workphone**
   - **Extension**
7. Click **Next** and then select the check box next to **Position**.

   This will sort the information about your sales staff by their position.

   In this example, because sales figures are not included, the **Automatically Generate Totals** check box is disabled. If your report included a measure such as sales volumes for each staff member, you would select this check box to add the values for this numeric column to the overall list footer. For a grouped report, separate footers (or subtotals) also appear each time the grouping changes (in our case, managers and representatives at each level).
8. Click **Finish** to retrieve the data and show your grouped list report.

You could click **Next** here, and proceed to the filter-adding page of the wizard. However, we recommend that you first compare your interim report with the sample sales_staff_report.imr located in the *installation_location*\cer5\Samples\Impromptu\Reports folder.

Date: 4/1/2004

Grouped Sales Staff Report

Country	Firstname	Lastname	Position	Workphone	Extension
United States	Corey	Wright	Branch Manager	1 (305) 557-4810	3490
Canada	Georges	Saint-Germain		1 (416) 493-5595	1245
France	Denis	Pagé		+33 1 68 94 52 20	325
Canada	Sally	White		1 (403) 232-5986	317
Netherlands	Kick	Kalkman		+31 (0)20 692 93 94	197
United Kingdom	Walter	Taylor		+(44) 181 2033144	3547
United States	Julie	Olsen		1 (310) 281-5722	2045
United Kingdom	Polly	Linton		+(44) 121 3505267	1216
Sweden	Karin	Bergström		+(46) 08 753 116	215
Italy	Maria	Iacobucci		+(39) 02 41 05 400	
United States	Samantha	Floyd		1 (206) 292-0012	331
Australia	Alice	Walter		+(61) 03 2982 4242	1845
United States	Alex	Rodriguez		1 (617) 268-6754	1334
Germany	Fritz	Hirsch		+(49) 89 882 3456	225
Mexico	Lucía	Reyna		+(525) 549 6090	452

Your multi-page report shows information about all your branch managers and sales representatives, in Page Layout form.

9. From the **File** menu, click **Save As**, type an appropriate name for your report, and then click **Save**.

   Your next step is to add a country prompt so you can focus your report on the location where you plan to test your reward program.

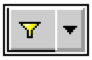
Example - Add a Filter and Formatting to Focus on Key Data

In this exercise, you learn how to enhance the report you just created by

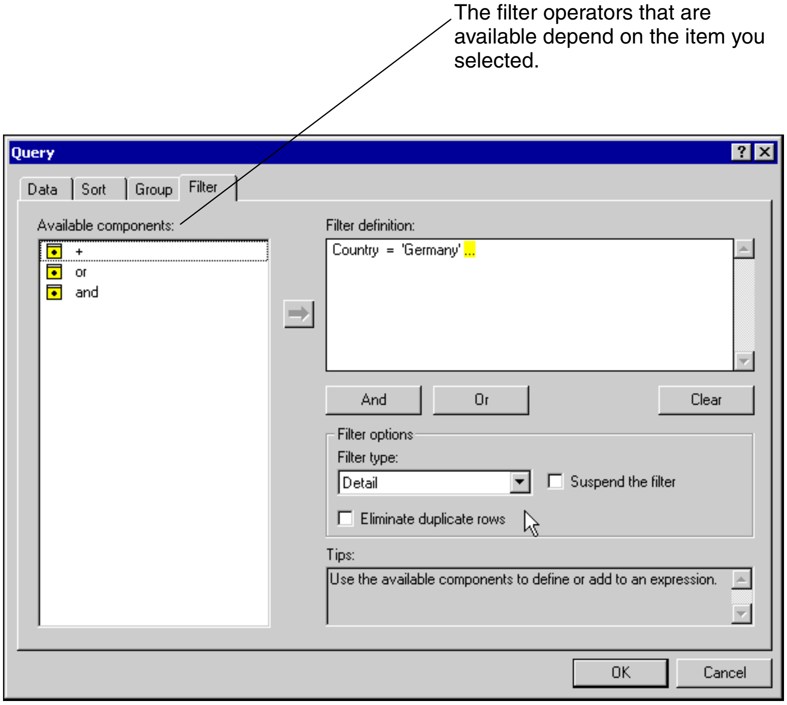
- adding a filter so that users can focus to one country
- reorganizing the information to make the report more usable
- enhancing its appearance using custom formatting

Instead of reopening the Report wizard, you can use the filter button on the toolbar to filter the report on a selected item (in our case, a country).

Steps



1. Open the report you created in the previous exercise, click the down-arrow to the right of the filter button on the toolbar, and click **Filter Definition**.
2. In the **Filter** tab of the **Query** dialog box, double-click the **Report Columns** folder to open it, and then double-click **Country** to add that column to the **Filter definition** box.
3. Double-click the equals sign (=) and double-click **select values**.
4. Click **Germany** and click **OK**.



5. Accept the defaults, click **OK**, and observe the filtered report.

   The list now shows your German staff: four managers, two mid-level, and one senior sales representative.

   Tip: If you decide to change the filter, click the **Filter** button again. A message warns you that the filter will be cleared from the report. Click **OK** to return the report to its unfiltered state.

6. With the report in Page Layout view, click the top of the **Country** column to select all column cells.

7. From the **Edit** menu, click **Delete**.

   Your list does not need this column because there is only one country in your report.

8. Double-click the existing title, and then change the text by typing **German Sales Staff Report**.

9. If you want, from the **Format** menu, click **Align** and left-align the title text. Or click **Font**, select a larger type size, and change the text to ***bold italics*** for emphasis.

10. Click the top of the **Position** column, and then click the header button on the toolbar.

    Observe that each staff member is now located under the header appropriate to their position, making the list easier to understand.

11. Click the top of the **Lastname** column, and then click the sort ascending button on the toolbar.

    Observe that the names in each group are now in alphabetical order.

12. Double-click to select the column headings and then rename them to **First Name**, **Last Name**, and **Work Telephone**.

    Observe that the column resizes to accommodate the new width.

13. Click the Branch Manager row so that the entire cell is selected, and then from the **Format** menu, click **Patterns** to change the background from the default, Transparent, to a solid gray pattern.

German Sales Staff Report

First Name	Last Name	Work Telephone	Extension
Branch Manager			
Frank	Fuchs	+(49) 40 663 1990	1847
Fritz	Hirsch	+(49) 89 882 3456	225
District Manager			
Jörg	Kunze	+(49) 89 882 3456	234
Level 2 Sales Representative			
Gunter	Erler	+(49) 40 663 1990	1823
Elsbeth	Wiesinger	+(49) 40 663 1990	1818
Level 3 Sales Representative			
Björn	Winkler	+(49) 89 882 3456	224
Regional Manager			
Else	Mörike	+(49) 40 663 1990	1865

14. Press the Esc key to see the effect of your changes.

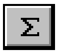
    Experiment with other formatting options until you are satisfied with the results.
15. From the **File** menu, click **Save As** and save your report using an appropriate file name.

Example - Add a Summary Column to a List Report

When you present your report to the incentive program planning team, they ask for additional information about sales targets. In this exercise, you learn how to add a summary column to your list report.

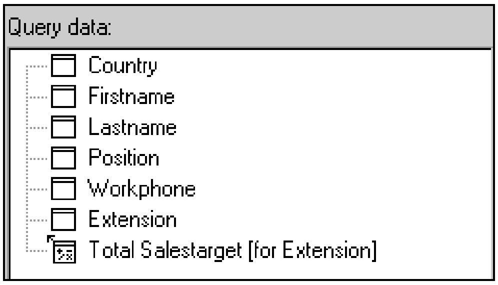
Steps

1. If you have not already done so, open the grouped list report you created in the previous exercise and, from the **Report** menu, click **Query**.



2. On the **Data** tab, double-click the **Sales Staff** and **Targets** folders to open them, click **Salestarget**, and then click the sum button.
3. Leave the **Label** text as is, click the **Total** button, and click **OK**.
4. Confirm that your new data item was added to the query.
5. Click the **Group** tab and select the **Auto-group** check box. (Do not click **Position**: that item does not have a 1:1 relationship with your staff, and using it would change the list order used in the report.)

   This organizes your totals by Work Telephone Extension.



6. Click **OK** to run the report.

   Observe that your new column, **Total Salestarget**, is added. Managers are not listed in the report because they do not have sales targets.

German Sales Staff Report

First Name	Last Name	Work Telephone	Extension	Total Salestarget
Level 2 Sales Representative				
Elsbeth	Wiesinger	+(49) 40 663 1990	1818	3,031,400.00
Gunter	Erler	+(49) 40 663 1990	1823	3,688,700.00
Level 3 Sales Representative				
Björn	Winkler	+(49) 89 882 3456	224	4,288,800.00

7. If you want, double-click the new column heading to select it, and then change the name to **Total Sales Target**.
8. From the **File** menu, click **Save As** and save your report with an appropriate file name.

   You next learn how to create a more complex report, the crosstab, using a template rather than the Report wizard.

Try on Your Own

You can use this report as a building block for more complex reports, or create another report based on the default template (Grouped List). For more examples about grouping, summarizing, filtering, and formatting your rows and columns, see the remaining exercises in this document or the online Help.

Chapter 3: Creating a Crosstab Report

A crosstab is a tabular report that shows a measure at the intersection of each row and column. Columns typically represent different dimensions of your business.

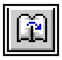
Impromptu provides a template on which you can base your crosstab report. In this lesson, you create a simple crosstab like the one provided in the sample set. The report includes summary totals to make the information more useful.

Example - Create a Simple Crosstab Using the Template

You are the Sales Department Manager for a camping equipment company named the Great Outdoors Company. You want to review expected sales volumes for your various product lines.

You create a crosstab based on the template provided with Impromptu, automatically generating the appropriate totals.

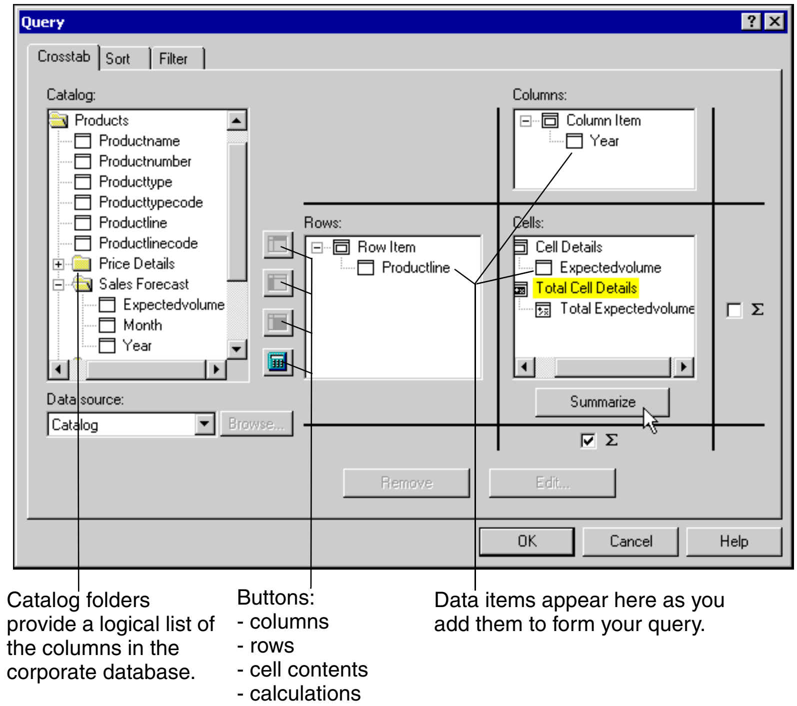
Steps

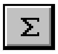


1. If the sample catalog gosales.cat is not already opened, open the catalog now (p. 7).

   Tip: Check the lower status bar. If you see **GOSales Catalog**, the catalog you need is currently open.
2. From the **File** menu, click **New** to open the **New** dialog box.

   Tip: Do not click the new button on the toolbar. This opens the **Report** wizard instead of the **New** dialog box.
3. Specify that your new report will be a **Crosstab** and click **OK**.
4. On the **Crosstab** tab of the **Query** dialog box, select data items:
   - Double-click the **Products** folder to open it, click **Productline,** click the rows button, and confirm that this item appears in the **Rows** box as shown.
   - Double-click the **Sales Forecast** folder to open it, click **Year**, click the columns button, and confirm that this item appears in the **Columns** box, as shown.
   - Click **Expectedvolume**, click the cell contents button, and confirm that this item appears in the **Cells** box, as shown.





5. Select the sum symbol check box under the **Summarize** button, to add footer totals. (If the crosstab were to incorporate a nested column, such as **Month**, subtotals would also be added for each month level.)
6. Click **Total Cell Details**, click **Summarize**, and then use the **Preview** box to confirm how your overall totals will appear (all product lines will be summarized, for each year).
7. Click **OK** twice, and then wait for the report to run and appear in Screen Layout view.

   Observe that **Camping Equipment** sales are expected to increase but sales in the **Outdoor Protection** line are expected to decline.

Productline	2004	2005	2006
Camping Equipment	181057	304758	338996
Golf Equipment	19015	37991	40344
Mountaineering Equipment		130268	149107
Outdoor Protection	272791	171704	128618
Personal Accessories	86882	133506	170968
	559745	778227	828033

8. From the **File** menu, click **Save As**, type an appropriate name for your report, and then click **Save**. Leave the report open for the next exercise.

Example - Add Formatting as Used in the Sample Report

In this exercise, you learn how to apply some of the formatting effects used in the simple_crosstab_report.imr sample to make your report more graphically interesting. You can find the sample report in *installation_location*\cer5\samples\Impromptu\reports.

Steps

1. Click the blank area to the right of the report you created in the previous exercise, to select it. Then, from the **Format** menu, click **Properties**.
2. Click the **Layout** tab, select the **List Header** check box, and click **OK**. Press the Esc key to clear all highlighting from the report.

Observe that you now have a frame that you can use for your title.

3. From the **Insert** menu, click **Text Frame**. Drag the pointer to create a text box in the header area, and type your title.
4. With the text box selected, from the **Format** menu, click **Font** and select a bold italic font at 14-point size to make your title stand out. Click **OK**.
5. Drag the left side of the text frame to reduce its size and allow room for your logo in the upper left corner of the report. Press the Esc key to clear the selection. From the **Insert** menu, click **Picture Frame**, and drag the pointer to trace out a small square frame to enclose the ***GO*** bitmap.
6. On the **Source tab**, click the **Browse** button next to the **Load from file** option. In the **\reports\samples support** folder, click go.bmp, click **Open**, and **OK**. Size the resulting image so that it fits into its frame, as shown.

Expected Sales Volumes

Productline	2004	2005	2006
Camping Equipment	181057	304758	338996
Golf Equipment	19015	37991	40344
Mountaineering Equipment		130268	149107
Outdoor Protection	272791	171704	128618
Personal Accessories	86882	133506	170968
	559745	778227	828033

7. Select all the values and, from the **Format** menu, click **Data**.

   Tip: You can Shift+click the first and last cells in the table, and then those in the summary row, to select all the values at once.
8. In the **Positive** box, click **$#,##0.00_)** as the currency data format, and then type **Null** in the **Missing** box to replace empty cells with the word Null in your final report. Click **OK**.
9. Experiment with the **Format** menu. Select each text area in turn, and use the **Font** and **Patterns** options to achieve different color effects. Use the Esc key to deselect and **Edit/Undo Format** to undo.
10. From the **File** menu, click **Save As**, type an appropriate name for your newly formatted report, and then click **Save**.

    You next learn how to create linked drill-through reports, building on what you already learned.

Try on Your Own

You can add new query data to your crosstab, or use the report as a base for adding pie charts or bar charts so viewers can quickly grasp the importance of the numeric data. For more information, see "Customizing Reports and Charts" (p. 23), and the online Help.

Chapter 4: Creating a Drill-Through Report

Typically, a drill-through report lets users move from summary data to supporting detail, revealing the underlying trends. By adding a drill-through link to a summary report, users can open the detail report that provides the related supporting information. For drill-through reports, summary and detail reports are also known as parent and child reports, respectively.

To complete the lesson, you must have the sample file named income_from_customers_drillthrough.imr, which is located in *installation_location*\cer5\Samples\Impromptu\Reports.

Example - Create a Summary Report

You are a junior sales analyst for the Great Outdoors Company. Your manager wants a report that summarizes the yearly performance of each of the company's retailers. The information will be used to reward high-performing retailers with discounts or promotions, and to cut company losses with low-performing retailers and products.

You begin by creating a report that contains a list of retailers with their total incomes. The data items you add to the report include a data item that already exists in the catalog and a calculated data item that you create. You sort the list by total income in descending order to show which retailers have the highest performance. Finally, you add a drill-through link that opens to a related report showing the products and product lines contributing to each retailer's total income.

Steps

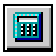
1. If the sample catalog gosales.cat is not already opened, open the catalog now (p. 7).

   Tip: Check the lower status bar. If you see **GOSales Catalog**, the catalog you need is currently open.
2. From the **File** menu, click **New**, and click **OK**.

   The **SimpleList** template is selected by default.
3. In the **Query** dialog box, in the **Catalog** list, open the **Orders** folder, and then open the **Order Details** folder.
4. Click **Retailername** and click the add arrow.

   Retailername appears in the **Query** data box.
5. Click **Retailername**, click **Edit Definition**, and then in the **Name** box type

   Retailer Name
6. Click **OK**.



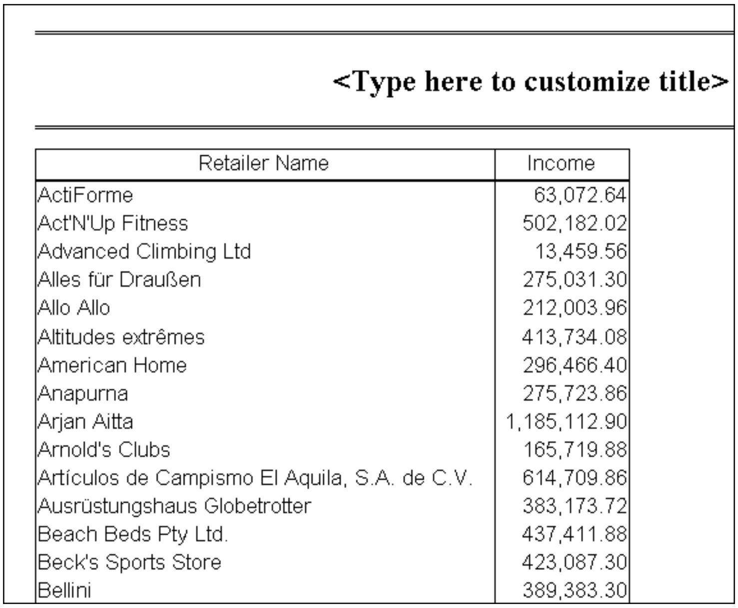
7. In the **Query** dialog box, click the calculation button and, in the **Name** box, type

   Income.
8. In the **Available Components** box, select data items:
   - Double-click **Summaries**, and then double-click the **total** function.
   - Double-click **Catalog Columns** and, in the **Catalog folders** box, double-click **Orders** and click **Order Income**, and click **OK**.
   - Double-click the **for** operator.
   - Double-click **Report Columns**, click **Retailer Name**, and then click the **Add** arrow.

   Your expression should look like this:

   ```
   total (Order Income) for Retailer Name ...
   ```
9. Click **OK** twice.

   The report shows a list of retailers in alphabetical order, along with the total income for each.



<Type here to customize title>

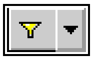
Retailer Name	Income
ActiForme	63,072.64
Act'N'Up Fitness	502,182.02
Advanced Climbing Ltd	13,459.56
Alles für Draußen	275,031.30
Allo Allo	212,003.96
Altitudes extrêmes	413,734.08
American Home	296,466.40
Anapurna	275,723.86
Arjan Aitta	1,185,112.90
Arnold's Clubs	165,719.88
Artículos de Campismo El Aquila, S.A. de C.V.	614,709.86
Ausrüstungshaus Globetrotter	383,173.72
Beach Beds Pty Ltd.	437,411.88
Beck's Sports Store	423,087.30
Bellini	389,383.30

10. From the **File** menu, click **Save As**, type an appropriate name for your report, and then click **Save**. Leave the report open for the next exercise.

Example - Refine the Query and Format the Report

You refine the report query by adding a filter and sorting the data values in the calculated column. Filtering the data lets you focus on the income earned for the year 2001. Sorting the data lets you list the retailers in descending order by total income. You then format the report to conform to company standards by adding currency formatting to the income values and adding a title to the report.

Steps



1. Click the down-arrow to the right of the **Filter** toolbar button, and click **Filter Definition**.
2. On the **Filter** tab in the **Available components** box, create the year filter:
   - Double-click **Functions**, and then double-click **year**.
   - Double-click **Catalog Columns**, and then, in the **Catalog folders** box, double-click **Orders**, click **Orderdate**, and click **OK**.
   - Double-click the equals sign **=**.
   - Double-click **number** and then type

     2004

   Your expression should look like this:

   ```
   year(Order Date) = 2004
   ```
3. Click **OK** to save the filter.
4. From the **Report** menu, click **Query**, and then click the **Sort** tab.
5. Select the data item **Income**, click **Descending**, and click **OK**.

   Observe that your retailers now appear in ranked order, although the non-standard formatting makes it difficult to detect the rankings.
6. Click a data item in the **Income** column of the report and, from the **Format** menu, click **Data**.
7. In the **Positive** box, click the number format **$#,##0.00_)** and click **OK**.

<Type here to customize title>

Retailer Name	Income
Falcon Outfitters	$662,058.74
Esportes Grumari	$438,154.44
Extreme Outdoors	$363,611.16
Outdoor Experience	$346,074.64
Jensen Mountaineering	$331,130.22
Paradiso della Tenda	$322,050.22
Maximum Sports	$281,652.00
Extrem!	$279,460.30
Ultra Sports	$274,318.40

The numbers are formatted to use the default currency symbol. However, you can change this setting in the **Positive** box of the **Data** tab to use any other value in the **Currency Symbol** list. Your choices are limited by the languages in your locale setting.

8. Double-click the text area marked **<Type here to customize title>**.

   Impromptu inserts a flashing I-beam in the title area.

   Tip: If you click only once in the text area, Impromptu selects the entire text frame in which the title is placed. You can press Esc to clear the highlighting and then double-click the title to see the flashing I-beam.
9. Drag the pointer to create a text frame, type **Income from Customers** as your title, and press Esc to refresh your view.

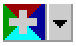
   Tip: As you type the title, parts of it may disappear from the screen. This happens because the text is in a frame of limited size. When you press Esc, all your typed-in text reappears.

Example - Add and Test a Drill-through Link

Now that you have the summary report, you can add a drill-through link that opens a related report showing the products and product lines contributing to each retailer's total income. You can use an existing sample report as the detail report.

Steps to Add a Drill-through Link

1. In the **Retailer Name** column, click a data item.



2. From the **Report** menu, click **Drill Through**, then click **Properties**.
3. In the **Drill through link** box, click **Retailer Name**, and then click **Add**.

   Because drill-through access to the detail report is based on one data column only (Retailer Name), when the detail report opens, it filters on that column. However, you can set up drill-through reports to drill on more than one data column.
4. In the **Add Drill Through Query/Report** dialog box, go to the folder named *installation_location*\cer5\Samples\Impromptu\Reports, and open the file named income_from_customers_drillthrough.imr.
5. Click Open, and then click **OK** twice.
6. From the **File** menu, click **Save As** and then type an appropriate name for the summary report. Leave the report open for testing.

   Tip: To let users know that a drill-through link exists in the report, you may want to use the **Font** option on the **Forma**t menu to add a visual clue, such as underlining, to the Retailername data items.

Steps to Test the Drill-through Link

1. In the **Retailer Name** column of the summary report, click **Falcon Outfitters**.
2. From the **Report** menu, click **Drill Through**, and then click **income_from_customers_drillthrough.imr**.
3. If a **Catalog Upgrade** dialog box appears, select **Upgrade this catalog** and click **OK**.

4. Confirm that only the data for the appropriate retailer shows in the detail report.
5. Open income_from_customers_drillthrough.imr without using the drill-through link from the summary report, and confirm that the filter is no longer applied. You should see different data.

Try on Your Own

You can test the drill-through link with the other retailers, to see the product-by-product breakdown for each.

You may want to format your report to conform to your company's standards. For information about customizing reports, see "Customizing Reports and Charts" (p. 23) or the online Help.

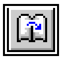
Chapter 5: Customizing Reports and Charts

In this lesson, you learn how to customize reports using conditional formatting, and enhance charts to better convey information.

Example - Add Conditional Formatting

As the Sales Department Manager for the Great Outdoors Company, you must compare actual to forecast sales, year by year and region by region. To help you in this analysis, you use a report that applies conditional formatting showing negative numbers in red. You want to remove the existing formatting and highlight exceptional performance instead. To do this, you must create and apply a new conditional expression.

Steps



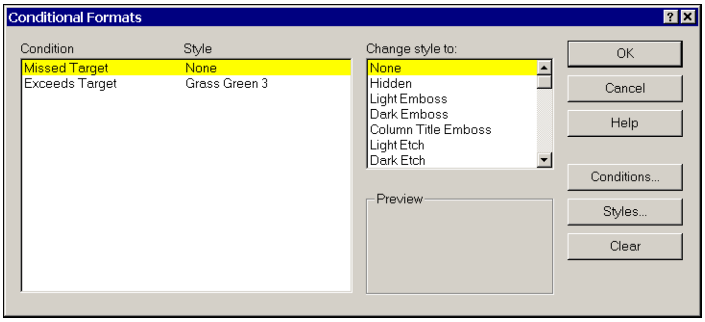
1. If you do not have the gosales.cat catalog open, from the **Catalog** menu, click **Open** and double-click **gosales.cat** in the **Reports** folder.

   Tip: Check the lower status bar. If you see **GOSales Catalog**, the catalog you need is currently open.

2. From the **File** menu, click **Open**, and double-click **Actual_Sales_Against_Target_Sales_(prompt).imr** in the **Reports** folder.
3. When prompted for the country, click **Germany**, and click **OK**.
4. Right-click a value in the **Total Sales** column, click **Conditional Formats**, and then click **Conditions**.
5. Click **Add Custom Condition**.
6. In the **Name** box, type

   Exceeds Target
7. In the **Available components** box, double-click **Report Columns** to open it, and then double-click **Total Sales** to start building the expression.
8. Complete the expression for the **Exceeds Target** definition:
   - Double-click the greater than symbol (>).
   - Double-click the **number** entry and type **3000000**.
   - Click **OK** and confirm that the definition appears in the list.
9. Click **Close** and confirm that your new definition appears in the **Condition** list. Observe that the **Style** entry is set to **None**.
10. Click **Exceeds Target**, and in the **Change style to** box, click **Grass Green 3**.
11. Click **Missed Target**, and in the **Change style to** box, click **None**.

    The conditional format entries should appear as follows.



12. Click **OK**.
13. Press the Esc key to remove the color overlay. Confirm that entries that exceeded target are highlighted in green.
14. From the **File** menu, click **Save As**, type an appropriate name for your customized report, and then click **Save**.

Try on Your Own

Now try red-flagging vendors whose incomes are below a specific threshold ($75,000). You can add a conditional (calculated) expression and custom formatting to the sample report named income_from_customers.imr. Or, you can use the vendor list report you previously created as a drill-through source (see "Creating a Drill-Through Report" (p. 19).

Tip: You can use the **Patterns** option in the **Format** menu to achieve other color effects.

Example - Add Chart Enhancements

As the Sales Manager for the Great Outdoors Company, you frequently give presentations in which you include reports that have embedded charts. You typically make enhancements to the charts to improve their usability.

In this exercise, you add enhancements to the sample report named product_details_drillthrough.imr. This report contains two charts, and you change one chart to make it more closely match the other chart. You

- change the chart and axis titles
- customize the category title
- customize the value title (Y1)
- change the location of the legend
- change the location of data values on the bar columns
- change the color of the bar columns
- change the depth of the chart
- add grid markers
- add extra labels on the vertical axis

Steps to Open the Sample Report

1. From the **File** menu, click **Open**.
2. In the **Reports** folder, double-click **product_details_drillthrough.imr**.
3. In the **Prompts** box, click **Aloe Relief**, and click **OK**.

Steps to Change the Chart and Axis Titles

1. Right-click the chart named **Total Return Quantity**, click **Properties**, and click the **Format** tab.
2. Click **Titles** and, in the **Title** box, select **Total Return Quantity**, and then type
   Total Quantity Returned
3. In the **Category Title** box, select **Returns**, and then type
   Year
4. Click **OK** twice.
5. Press the Esc key to see the effect of your changes.
   The chart and category titles appear as you entered them.

Steps to Customize the Category Title and Value Title (Y1)

1. Right-click the quantity returned chart, click **Properties**, and click the **Format** tab.
2. In the **Font formatting** box, click **Category title**, and click **Edit**.
3. On the **Font** tab, change the font color to black and the font style to bold. Keep the alignment setting at center, and click **OK**.

4. In the **Font formatting** box, click **Value title (Y1)**, and click **Edit**. On the **Font** tab, change the font color to black, the font style to bold, and the font size to 11. Click **OK** twice.
5. Press the Esc key to see the effect of your changes.

   The category title and value title appear as you formatted them.

Steps to Change the Location of the Legend

1. Right-click the quantity returned chart, click **Properties**, and click the **Format** tab.
2. Click **Properties**, click the **Look** tab and, in the **Layout** box, click **Legend on Right Side**.
3. Click **OK** twice.
4. Press the Esc key to see the effect of your change.

   The legend now appears on the right side of the chart.

Steps to Customize the Bar Columns

1. Right-click the quantity returned chart, click **Properties**, and click the **Format** tab.
2. Click **Properties**, click the **Data Labels** tab, in the **Labels Location** box, click **Outside Maximum**, and click **OK**.
3. Click **Customize per Data Item** and, in the **Color** column, change the color for 2004 to yellow, the color for 2005 to light green, and the color for 2006 to dark green.
4. Click **OK** twice.
5. Press the Esc key to see the effect of your changes.

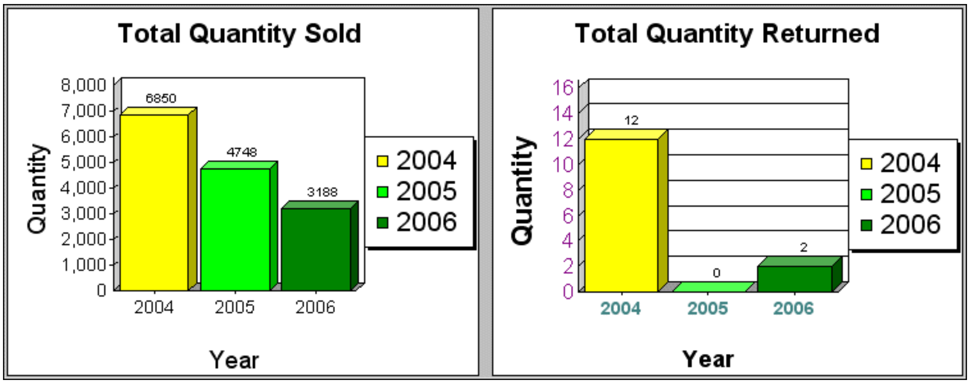
   The data values now appear just below the maximum value on the bar columns. The colors of the two charts now match.

Steps to Customize the Chart Depth, Grid, and Scale

1. Right-click the quantity returned chart, click **Properties**, and click the **Format** tab.
2. Click **Properties**, click the **General** tab, change the depth to 125, and click **OK**.
3. Click **Grids and Scales**, and click the vertical **Y1 Axis** tab. Click the horizontal **Grids** tab, select the **Show Gridlines** check box and, in the **Grid Style** box, click **Regular Grids** to add horizontal grid lines to the chart.
4. Click the horizontal **Scales** tab, select the **Set Maximum Value** check box, and type **16** to add an extra label on the vertical axis.
5. Click **OK** twice.
6. Press the Esc key to see the effect of your changes.

   The bars in the chart have more depth, and there are now horizontal grid lines and an extra label on the vertical axis.

After making all the enhancements, your chart should look like this.



Try on Your Own

Try using other samples in the **Reports** folder to experiment with the charting features provided in the latest Impromptu release. Try changing the chart type from a bar chart to something different, such as a pie chart, and experiment with the options available for that chart. For instructions, see the online help.

Glossary

associated data item

A data item linked to the group data item. Associated data items suppress duplicate data values, but do not generate a control break. For example, if Customer Number is the grouped data item, you can repress Customer Name by declaring it as an associated data item. When Customer Number appears in the report, it appears only once for the group. Marking a data item as associated can affect how Impromptu calculates summary values.

calculated data item

A data item that shows the result of an expression that uses stored data. The value recalculates each time a value in the expression changes. For example, you can use the string operator (+) to combine a data item called Firstname with a data item called Lastname to form a calculated data item called Fullname.

catalog

A file (with the extension .cat) that contains all the information necessary for Impromptu to access and retrieve information from a relational database. A catalog does not store data, but it does provide Impromptu with a business view of the data. A catalog also contains information about what database to access, where the database is stored, and how the tables in the catalog are joined.

conditional format

An instruction to Impromptu to look through data in the selected report objects and format the data that meets predefined conditions. Use this format to identify exceptional data in your report. For example, retail outlets with quarterly revenues greater than $500,000 could be highlighted in green, while retail outlets with quarterly revenues less than $250,000 could be highlighted in red.

crosstab

Shows summary information from a list report in a compact table of rows and columns. A crosstab shows the value for the combination of each row and column, enabling you to gain a different perspective on the data and see more without the need to scroll.

For example, you can change a list report that has three columns (Product Type, Sales Channel, Total Sale Amount) into a crosstab that has each Product Type as a row, each Sales Channel as a column, and the Total Sale Amount for each combination of Product Type and Sales Channel in the cells.

drill-through

An action that enables Impromptu, PowerPlay, and Scenario users to view transaction-level details in an Impromptu report. You can set up a drill-through for any cell in Impromptu, any value in PowerPlay, or any node in Scenario's tree view.

expression

Any combination of operators, constants, functions, data items, and other components that evaluates to a single value.

filter

A set of criteria used to retrieve a subset of records. For example, instead of viewing total sales, you can view sales for a specific region, product line, or time period.

You can add filters to entities, use filters to create specialized subtype entities, and use filters to ensure consistency in the filter expressions used by report users in Impromptu, PowerPlay Transformer, and Cognos Query. You can also restrict the data that users can see by applying filters to objects within a user class. For example, you can create a filter on the Salary table so that only the Human Resources department can view that table.

frame

A report object that acts as a container for other report objects. Frames are the basic building block with which you create Impromptu reports.

group data item

A control data item that is used to group data in a report.

See also associated data item.

operator

Specifies what happens to the values on either side of the operator.

There are four types of operators:

- Logical: defines relationships between two parts of the expression.
- Arithmetic: performs arithmetic operations on two parts of an expression.
- String: concatenates two character strings.
- Comparison: compares one or more values that you enter against the values in the database.

picture frame

A frame that you can use to show a bitmap (.bmp) or Device Independent Bitmap (DIB). You can enhance the appearance of your reports by adding images such as a company logo. In addition, you can show pictures, such as your company's products or employees, that change based on the content for the items.

prompt

A dialog box that asks the user to enter information when a report is opened. A report can contain several prompts which it uses to filter so you only get the data you want. Prompts can require the user to type in information, or select items from a picklist. A picklist can include data items from the catalog, data items from another report, or data from a file in delimited ASCII format.

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