

# COGNOS<sup>(R)</sup> ENTERPRISE BI SERIES

COGNOS REPORTNET<sup>(TM)</sup>

QUERY STUDIO

USER GUIDE

## Product Information

This document applies to Cognos ReportNet™ Version 1.1 MR1 and may also apply to subsequent releases. To check for newer versions of this document, visit the Cognos support Web site (<http://support.cognos.com>).

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# Table of Contents

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<b>Introduction</b>	<b>5</b>
<b>Additional Materials</b>	<b>7</b>
<b>Chapter 1: Using Query Studio</b>	<b>9</b>
Open the Web Portal	9
Creating a Report	10
Create a Report	10
Open an Existing Report	10
Reports and Package Versions	11
Add Data to a Report	11
Save a Report	12
Save a Report Using a Different Name or Location	13
Running a Report	13
View a Report in PDF Format	14
View a Report in CSV Format	15
View a Report in XML Format	15
View a Report in Excel Format	15
View a Report in Excel 2002 Format	16
Run a Report in Report Studio	16
Print a Report	16
Get the Report Definition	16
Setting up a Multilingual Reporting Environment	17
Report Types	18
List Reports	18
Example - Create a List Report for Quantity	18
Grouped List Reports	19
Example - Create a Grouped List Report for Units Sold	20
Crosstab Reports	21
Create a Crosstab Report	21
Example - Create a Crosstab Report for Units Sold	22
Charts	22
Choosing a Chart Type and Configuration	23
Chart Types	23
Chart Configurations	24
Create a Chart	25
Example - Create a Pie Chart for Units Sold	25
Changing the Appearance of Reports	26
Change the Title	26
Collapse a Report	27
Reorder Report Items	27
Change the Report Item Name	28
Swap Rows and Columns	28
Specify the Rows Per Page	28
Report Administration	29
<b>Chapter 2: Working with Data</b>	<b>31</b>
Filters	31
Filter Data	32
Use a Prompt	33
Create Custom Groups	34

Example - Create a Custom Group for North America	34
Sort Data	35
Group Identical Values	35
Turn Off Automatic Summarization	37
Change the Data Format	38
Calculations	39
Add a Summary to a Report	40
Add a Calculation to a Report	41
Example - Calculate Units Sold in Each Country as a Percentage of the Total	43
<b>Appendix A: Samples</b>	<b>45</b>
Expand and Collapse	45
High Margin Product Types	45
Low Revenue Products	45
Product Line % Margin Comparison Chart	45
Product Line Revenue Chart	45
Returns by Order Method	45
Web Product Sales	45
<b>Appendix B: Troubleshooting</b>	<b>47</b>
No Data Appears in the Report	47
Incorrect or Unexpected Values Appear in the Report	47
Remove Filter Value Subtitles	48
Printed Report is Unsatisfactory	48
Problem When Printing PDF	48
Cannot Collapse the Report	49
Report Does Not Appear in XML Format	49
CSV File Has No Commas	49
Report Filter Does Not Work	49
Running Total in Grouped Reports Gives Unexpected Results	49
<b>Appendix C: Producing Reports in Microsoft Excel Format</b>	<b>51</b>
Microsoft Excel Limitations	51
Unable to Load Images from the ReportNet Content Store in a Report	51
Blank Worksheet is Opened	51
Warning Message Appears When Excel Opens a ReportNet Report	51
Loading Excel Reports in Netscape 7.01 is Not Supported	51
Nested Labels in Charts Are Not Supported	51
Data Series Are Truncated	51
Formatting Limitations	52
Overline Text Format	54
Reports With More Than 256 Columns	54
Table and Column Width	54
Using Secure Socket Layer (SSL)	54
ReportNet Limitations	54
Copying or Moving Saved Reports	55
Accessing Reports on a Remote Server	55
Drill-Through Reports	55
Formats Not Supported for Reports in Excel Format	55
Hyperlink Buttons	55
Emailing Reports in Excel Format	55
Charting Support in Excel and ReportNet	56
<b>Glossary</b>	<b>61</b>
<b>Index</b>	<b>65</b>

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# Introduction

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This document is available as online help and as an online book. For information about related documents, see "[Additional Materials](#)" (p. 7).

## Query Studio

Query Studio is a Web product for creating ad hoc reports.

## User Guide

This document includes procedures and background information to help you create ad hoc business intelligence reports.

To use this guide effectively, you should be familiar with your organization's business and its data, and the Web.

## Questions or Comments?

For additional technical information about using this product, visit the Cognos support Web site (<http://support.cognos.com>).



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# Additional Materials

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In this guide, we refer to other documents. Their locations are listed below.

<b>Topic</b>	<b>Location</b>
How to manage ReportNet security, services, and report properties	ReportNet <i>Administration and Security Guide</i>
How to author professional reports using Report Studio	Report Studio <i>User Guide</i>
How to manage reports	ReportNet <i>User Guide</i>
How to create and publish models using Framework Manager	Framework Manager <i>User Guide</i>
How to understand the various stages in the life cycle of a report	ReportNet <i>Getting Started</i>
How to understand the workflow involved in authoring a report	ReportNet <i>Getting Started</i>
How to troubleshoot ReportNet	ReportNet <i>Troubleshooting Guide</i>

## Formats

Our documentation includes user guides, tutorial guides, reference books, and other materials to meet the needs of our varied audience.

### 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. All online help is also available from the Windows Start menu (**Start, Programs, Cognos ReportNet, Documentation**).

### 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.

All online books are available on the Cognos documentation CD.

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



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# Chapter 1: Using Query Studio

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Query Studio is the ad hoc reporting tool for ReportNet, the Web-based reporting solution.

In Query Studio, you can

- [view data](#)  
Connect to a data source to view data in a tree hierarchy. Expand the query subjects to see query item details.
- [create reports](#)  
Use the data source to create reports, which you can save and reuse. You can also use an existing report to create a new report.
- [change the appearance of reports](#)  
Improve the layout of your report. For example, you can create a chart, add a title, or reorder columns for easy comparison.
- [work with data in a report](#)  
Use filters, summaries, and calculations to compare and analyze data.

To use Query Studio effectively, you should be familiar with the Web, as well as your organization's business and its data. You may also need to be familiar with other components of ReportNet.

## Report Studio

Report Studio is the professional reporting tool for ReportNet. Use it to author more complex reports.

Report Studio offers greater flexibility in calculating and formatting results.

## Cognos Connection

Cognos Connection is the Web portal for ReportNet. Use the portal to store and access your reports. If you have the necessary permissions, you can also use the portal for report administration, including scheduling and distributing reports.

Administrators use the portal to administer servers, optimize performance, and set access permissions.

## Framework Manager

Framework Manager is the data modeling tool for ReportNet.

The packages that you use to generate reports are based on models that are created in the modeling tool, Framework Manager. A model is a set of related query subjects and other objects, such as filters and calculations. When you open a package in ReportNet, these model objects are visible in the left frame.

## Open the Web Portal

The Cognos Connection Web portal is a single point of access to all ReportNet content.

You also use the portal to manage and distribute your reports. For information about other tasks you can do in Cognos Connection, see "[Report Administration](#)" (p. 29).

### Steps

1. Start your Web browser.
2. In the address bar, type the URL supplied by your administrator, and then press Enter.  
If prompted, type your logon name, password, and any other information required.

**Tip:** Create a bookmark in your browser for quick access to Cognos Connection.

You can now [create a new report](#) using an available package as a data source or [open an existing report](#).

## Creating a Report

Before you can create a report, the administrator must have previously created a package in Framework Manager and published it to a location in the Cognos Connection portal to which you have access.

Before you use Query Studio, answer the following questions:

- What business question do you want to answer? For example, you can ask "Which sales representative sold the most products?"
- Which type of report best answers the business question, a crosstab report or a chart?
- Who is the target audience?
- What data items and calculations do you need?

Creating a new report involves the following tasks:

- [Create the report](#).
- [Add data](#).
- [Save the report](#).
- [Run the report](#).

You can work with the data that appears in the report ([p. 31](#)) and change the layout ([p. 26](#)).

## Create a Report

You can create a report from scratch by inserting items from the data source into an empty report.

You can also create a new report by [opening an existing report](#), changing it, and saving it using another name.

### Steps

1. Open Cognos Connection.
2. On the **Public Folders** tab, click the package that you want to use as a data source.



If there is more than one package available, the **Select a Package** page appears. **No Entries** means that no reports were created using this package.

3. Click the **Query Studio** link on the toolbar.



Query Studio opens. The query items you can use are listed in the left pane.

**Tip:** To exit Query Studio and return to Cognos Connection, click **Return**.

You can now [add data](#) and [save the report](#).

## Open an Existing Report

You can open an existing report to make changes to it, use it as the basis of a new report, or view the current data.

You can also create a new report from scratch ([p. 10](#)).

## Steps

1. Open Cognos Connection.
2. Locate and click the name of the report you want to open.

The report opens in Query Studio.



**Tip:** You can use the Edit with Query Studio icon to identify a Query Studio report in Cognos Connection.

## Tips

- If you want to use the report as the basis of a new report, [save it using a different name](#).
- To browse through the pages of a report, use the links at the bottom of the page.
- If a report contains more columns than you can see, use the scroll bar to move left or right.
- To increase the available space for viewing reports, click the hide menu button in the top right corner of the menu.
- To view the menu, click the show menu button in the top left corner of the report.
- You can also resize the menu.



## Reports and Package Versions

In Query Studio, reports always use the most recent version of the package. If the package is republished, you are notified that the report will use the newest version of the package. You must save the report to complete the update.

In the report viewer, if you open a saved report after the package it is based on is republished, one of two things happens:

- If the original version of the package still exists, the report runs against the original version.
- If the original version of the package no longer exists, the report is updated to run against the most recent version.

For information about using the report viewer to produce an HTML version of a report, see the *ReportNet User Guide*.

The report modeler specifies whether previous versions of a package are preserved. For information about model versioning, see the *Framework Manager User Guide*.

## Add Data to a Report

A new report contains no data. You choose the report items that you want to include in the report from the package. Packages can include

- query subjects
- query items, such as columns of measures and non-measures
- query items created by the data modeler, such as calculated report items

Items added from the package to your report are called report items. Report items appear as columns in list reports, and as rows and columns in crosstab reports. In charts, report items appear as data markers and axis labels.

You can expand the scope of an existing report by inserting additional report items, or you can focus on specific data by removing unnecessary report items.

You may frequently use query items from different query subjects in the same reports. Ask your modeler to create a query subject that contains these query items, and to include that query subject in the relevant package. For example, if you use the product code item in sales reports, the modeler can create a query subject that contains the product code query item in addition to the sales query items you need.

You can also add calculations to a report ([p. 41](#)).

## Data Source Icons

Each object in the data source has a representative icon.

Icon	Object
	Package
	Query subject, which represents a table in the database
	Query item, which represents a column of qualitative data in the database, such as product name or country
	Measure or fact, a query item that represents a column of quantitative data in the database, such as revenue or quantity
	Model filter

### Steps

1. Open a report in Query Studio.
2. Click the **Insert Data** menu command.  
A tree hierarchy of the selected package appears in the left pane.
3. In the left pane, double-click the query items you want to add.

### Tips

- By default, each new report item follows the last report item, but you can insert an item in a different position. Click an existing heading in your report. The next item you add from the package precedes this heading.
- To simultaneously add several query items, use Ctrl+click to select multiple items, and then, at the bottom of the left pane, click **Insert**.
- To remove data permanently from your report, click the report item heading, then click the delete button on the toolbar.



## Save a Report

Save your report to preserve any changes.

What you save in Query Studio is the query definition, which is a specific set of instructions for extracting particular data. It is not a snapshot of the data you retrieve at the time you save the report. For example, if you run a report that you saved two weeks ago, the data in the report reflects any changes in the updated data source.



### Steps

1. Click the save button on the toolbar.
2. If you are saving the report for the first time, specify where you want to save the report and type a file name.  
If you want to include a description, type the information you want to add in the **Description** box.
3. Click **OK**.

## Save a Report Using a Different Name or Location

You can save a report using a different name or location to use it as the basis of a new report.



### Steps

1. Click the save as button on the toolbar.
2. Specify a name and location.

To include a description, type the information you want to add in the **Description** box.

3. Click OK.

## Running a Report

You can run a report to retrieve any recently updated data from the data source. A Query Studio report also runs when you open it, or when you make any changes.

For information about other run options, see the ReportNet *User Guide*.

### SAP BW

If you are using an SAP BW data source to run a report that contains unsupported functions or features, an error message appears that explains why the action is not supported using SAP.

If you are using an SAP BW data source, you can cancel a query only soon after it begins to run. After this time, the query runs to completion on the SAP BW server.

### Run with Prompts

In Query Studio, prompts ask for user input to define the content of a report. If a report contains prompts, you are prompted when you open the report and when you run the report. For information about prompts, see "[Use a Prompt](#)" (p. 33).

### Run with All Data

The Run With All Data command runs the report using the full data source. Running a report can take a long time. If you plan to make several changes to a report, run the report in preview mode to save time and computer resources by limiting the rows of data that your report retrieves.

### Preview Reports with Limited Data

By limiting data retrieval, you can run reports more quickly.

Preview mode improves the report performance only if the data modeler defines one or more design mode filters in the Framework Manager project. Design mode filters restrict the amount of data that a preview report retrieves to a predetermined limit. A report based on a package that does not contain a design mode filter is not faster when run in preview mode.

A report in limited data mode does not compute rollups.

**Note:** You cannot change this predetermined limit in Query Studio. For information about creating filters in Framework Manager, see the Framework Manager *User Guide*.

When you use this command, remember that the data retrieved in preview mode is not complete. The accuracy of the data returned is limited to the number of preview rows predefined in the model. For example, summarized values will be incorrect because they do not include all of the data.

When a preview uses limited data, a torn border appears at the top and bottom of your report as a visual reminder that you are not using the entire data source.

Limited data		
Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>117,136</b>
Golf Equipment	Germany	6,410
	Japan	7,158
	United States	10,470
Golf Equipment		<b>10,470</b>
Mountaineering Equipment	Germany	27,584
	Japan	3,330
	United States	34,132
Mountaineering Equipment		<b>34,132</b>
Outdoor Protection	Germany	39,006
	Japan	28,172
	United States	68,630
Limited data		

### Preview Reports with No Data

When a preview uses no data, a torn border appears at the top and bottom of your report as a visual reminder that you are not using the entire data source.

When you preview reports with no data, you do not use the data source at all. Artificial data replaces the numbers and characters from the data source. None of the data is correct.

Data is turned off		
Product line	Country	Quantity
abcd	abcd	1,234
	abcd	1,234
	abcd	1,234
abcd		<b>1,234</b>
abcd	abcd	1,234
	abcd	1,234
	abcd	1,234
abcd		<b>1,234</b>
Summary		<b>1,234</b>

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, choose how to run the report:
  - To run the report using all data, click **Run with All Data**.
  - To run the report using limited data, click **Preview with Limited Data**.

If the package that the report is based on contains a design filter, performance is improved.

- To run the report using no data, click **Preview with No Data**.

## View a Report in PDF Format

To save a snapshot of your report data, you can create a PDF (Portable Document Format) version of your report.

You must have Adobe Acrobat Reader installed on your computer to view a report in PDF format.

**Note:** For best results, use the PDF format when you want to print a report.

### Steps



1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in PDF Format**.

The report opens in PDF format in a new window.

**Tip:** To specify the orientation and page size of your PDF report, from the **Run Report** menu, click **Specify PDF Options**.

## View a Report in CSV Format

You can view list reports in CSV (Comma Separated Values) format.

The output is determined by the configuration of the computer and by the browser. If you have Excel installed on your computer, you may see Excel appear within your browser window or in a new window, depending on the configuration. If Excel appears in your browser window, you will see the File menu.

You may be asked whether you want to download the CSV file, or you may have the option to open it or save it.

If the user has an application other than Excel associated with CSV, then the browser will call that application.

You cannot view charts or a crosstab reports in CSV format.

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in CSV Format**.
3. In the **File** menu, click **Save As**, and specify a name and location.

The report is saved as a text file that you can import into other products.

## View a Report in XML Format

You can view list reports in XML format.

You cannot view charts or a crosstab reports in XML format.

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in XML Format**.

The report opens in XML format in a new window.

## View a Report in Excel Format

You can view reports in Excel format.

Excel format supports up to 65,536 rows and multiple sheets.

### Date Formats and Excel

The ReportNet full date format does not always display correctly in Microsoft Excel 2000, if it is on a system with a regional setting other than English. This does not occur with Microsoft Excel 2002 or 2003 versions. To fix this, re-apply the proper format in Excel.

Other limitations exist when producing reports in Microsoft Excel format.

For information about these limitations, see "[Producing Reports in Microsoft Excel Format](#)" (p. 51).

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in Excel Format**.  
The report opens in a new window.

## View a Report in Excel 2002 Format

You can view reports in Microsoft Excel versions 2002 and higher.

Limitations exist when producing reports in Microsoft Excel format.

For information about these limitations, see "[Producing Reports in Microsoft Excel Format](#)" (p. 51).

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in Excel 2002 Format**.  
The report opens in a new window.

## Run a Report in Report Studio

If you have the necessary permissions, you can open a Query Studio report in Report Studio.

- Click the Report Studio icon in the top right corner of the Query Studio screen.  
The Report Studio icon will be absent if you do not have the necessary permissions.

## Print a Report

Print your report to obtain a paper copy.

For best results, use the PDF format when you want to print a report.

You can also print a report from Cognos Connection. For more information, see the *ReportNet User Guide*.

### Steps

1. Open the report that you want in Query Studio.
2. From the **Run Report** menu, click **View in PDF Format**.  
The report opens in PDF format.
3. On the Acrobat Reader toolbar, click print.
4. Select the print options you want and click **OK**.



## Get the Report Definition

The Report Definition command describes the report items in each report and gives users, administrators, and customer support an important troubleshooting tool.

**Note:** You cannot change the report properties.

## Steps

1. Open the report that you want in Query Studio.
2. From the **Manage File** menu, click **Report Definition**.

The **Report Properties** dialog box appears. It contains a table that lists every filter, report item, and corresponding expression in the report.

**Tip:** Click **Query Information** to bring up a text box containing information about the query that you can send to customer support.

## Setting up a Multilingual Reporting Environment

You can set up an environment in which reports show data in more than one language and use different regional settings. This means that you can create a single report that can be used by report consumers anywhere in the world.

The samples databases provided with ReportNet store a selection of text fields, such as names and descriptions, in more than 25 languages to demonstrate a multilingual reporting environment. For information about how data is stored in the samples databases and how the samples databases are set up to use multilingual data, see the *ReportNet Administration and Security Guide*.

Here is the process for creating a multilingual reporting environment:

- Use multilingual metadata.

The data source administrator can store multilingual data in either individual tables, rows, or columns.

For more information about configuring your database for multilingual reporting, see the *ReportNet Administration and Security Guide*.

- Create a multilingual model.

Modelers use Framework Manager to add multilingual metadata to the model. They do this by defining which languages the model supports, translating text strings in the model for things such as object names and descriptions, and defining which languages are exported in each package. If the data source contains multilingual data, modelers can define queries that retrieve data in the default language for the report user.

For more information, see the *Framework Manager User Guide*.

- Create a multilingual report.

The report author uses Cognos Report Studio to create a report that can be viewed in different languages. For example, the report author can specify that text, such as the title, appears in German when the report is opened by a German user. Report authors can also add translations for text objects, and create other language dependent objects.

For more information, see the *Cognos Report Studio User Guide*.

- Specify the language in which a report is viewed.

You can use Cognos Connection to do the following:

- Define multilingual properties, such as a name, screen tip, and description, for each entry in the portal.
- Specify the default language to be used when a report is run.

**Tip:** You can specify the default language on the run options page, in the report properties, or in your preferences.

- Specify a language, other than the default, to be used when a report is run.

For more information, see the *ReportNet User Guide*.

The data then appears in Query Studio or in Cognos Report Viewer in the language and with the regional settings specified in the user's Web browser options, the run options, or the Cognos Connection preferences. Any text that users or authors add appears in the language in which they typed it.

## Report Types

Use different report types to look at data in different ways or to answer different business questions. For example, you create a list report to show your entire customer base, and you create a crosstab report to show the quantity of units sold broken down by product line and country. You can create a chart to present data graphically.

In Query Studio, you can create the following report types:

- [list reports](#)
- [crosstab reports](#)
- [charts](#)

You can also combine a chart with either a list report or a crosstab report.

## List Reports

Use list reports to show columns of information, such as product lists or customer lists.

Product line	Quantity
Personal Accessories	389,908
Mountaineering Equipment	301,958
Golf Equipment	99,400
Camping Equipment	866,234
Outdoor Protection	557,854
Summary	<b>2,215,354</b>

A list report shows data in rows and columns. You can apply a filter, summary, or calculation to manipulate the data that appears in the report.

By default, Query Studio automatically suppresses duplicates, summarizes detail values, and generates footer summaries for measures. You can change these defaults([p. 37](#)).

By default, Query Studio builds list reports when you create a report from scratch. You can try [creating a list report](#) yourself.

### Example - Create a List Report for Quantity

You are a report author at the Great Outdoors Company, which sells sporting equipment. You are requested to create a report that shows the quantity of units sold for each product line in all countries. You can retrieve this information using a list report.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the ReportNet *Administration and Security Guide*.

#### Steps

1. In the Cognos Connection home page, click the **Public Folders** tab.

All available packages appear



2. Click the **GO Sales and Retailers** package.
3. Click the **Query Studio** link.

Query Studio opens, and the **GO Sales and Retailers** query items appear in the left pane.

4. Expand **Products**.
5. Double-click the **Product line** item.
6. Expand **Orders**.
7. Double-click the **Quantity** item.

By default, the report item heading uses the name of the underlying item in the data source. You can also add a descriptive title to the report.

8. At the top of the report, click the **Title** link.
9. In the **Title** box, type

**Units Sold**



You now have a titled report listing the units sold for every product line.

10. Click the save button on the toolbar.
  11. In the **Name** box, type
- Units Sold**
12. Leave the default destination folder as **Public Folders**, and click **OK**.

<b>Units Sold</b>	
<b>Product line</b>	<b>Quantity</b>
Personal Accessories	389,908
Mountaineering Equipment	301,958
Golf Equipment	99,400
Camping Equipment	866,234
Outdoor Protection	557,854
Summary	<b>2,215,354</b>

## Grouped List Reports

A simple list report that contains columns of unique values is easy to understand. However, after you add more columns, you may find that duplicate values appear in your report.

Grouping a report sorts the data and suppresses duplicate values in the grouped column. For example, a report contains information about the quantity of units sold, in columns named **Product line**, **Country**, and **Quantity**. Each product line is sold in more than one country, so the same product line value appears in multiple rows in the **Product line** column.

<b>Product line</b>	<b>Country</b>	<b>Quantity</b>
Camping Equipment	Germany	103,412
Camping Equipment	Japan	3,562
Camping Equipment	United States	117,136
Golf Equipment	Germany	6,410
Golf Equipment	Japan	7,158
Golf Equipment	United States	10,470
Mountaineering Equipment	Germany	27,584
Mountaineering Equipment	Japan	3,330
Mountaineering Equipment	United States	34,132
Outdoor Protection	Germany	39,006
Outdoor Protection	Japan	28,172
Outdoor Protection	United States	68,630
Personal Accessories	Germany	43,014
Personal Accessories	Japan	21,984

You group by product line to

- suppress duplicate values of the product line report item
- sort the product lines alphabetically
- generate footer summaries for each product line

Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>224,110</b>
Golf Equipment	Germany	6,410
	Japan	7,158
	United States	10,470
Golf Equipment		<b>24,038</b>
Mountaineering Equipment	Germany	27,584
	Japan	3,330
	United States	34,132
Mountaineering Equipment		<b>65,046</b>
Outdoor Protection	Germany	39,006
	Japan	28,172
	United States	68,630

For more information, see "Group Identical Values" (p. 35). You can try [creating a grouped report](#) yourself.

## Example - Create a Grouped List Report for Units Sold

You are a report author at the Great Outdoors Company, which sells sporting equipment. You are requested to create a report that shows the quantity of units sold for each product line in three specific countries. You reuse a list report that already contains some of the necessary data, and add another column.

At first, your report shows the total quantity of units sold for all product lines in all countries. You apply a filter to the Country column and group by product line to suppress the duplicate values in the Product line column.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the *ReportNet Administration and Security Guide*.

You must also have created the example list report (p. 18).

### Steps

1. Open the **Units Sold** report.
2. Click the heading of the **Quantity** column.
3. Click the **Insert Data** menu command.
4. Expand **Countries**.
5. Double-click the **Country** item.

A column appears that represents this item, to the left of the **Quantity** column. You now have a report listing the quantity of units sold for every product line in all countries. However, you are interested only in the quantity of units sold in three specific countries. Apply a filter to include only the countries you want.

6. Click the heading of the **Country** column.
7. Click the filter button on the toolbar.
8. In the **Show only the following** box, click **Germany, Japan, and United States**, and then click **OK**.

By default, the filters appear in the subtitle.

You can group by product line to suppress the duplicate values in the Product line column.



9. Click the heading of the **Product line** column.



10. Click the group button on the toolbar.

The values in the Product line column are sorted alphabetically, and duplicate values are removed.



11. Click the save as button on the toolbar.

12. In the Name box, type

**Grouped Units Sold**

13. Leave the destination folder as **Public Folders**, and click **OK**.

<b>Units Sold</b>		
Country: Germany, Japan, United States		
Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>224,110</b>
Golf Equipment	Germany	6,410
	Japan	7,158
	United States	10,470
Golf Equipment		<b>24,038</b>
Mountaineering Equipment	Germany	27,584
	Japan	3,330
	United States	34,132
Mountaineering Equipment		<b>65,046</b>
Outdoor Protection	Germany	39,006
	Japan	28,172
	United States	68,630

## Crosstab Reports

A crosstab report shows a measure at the intersection of each row and column. This is useful for showing more information in a smaller area. For example, if a report shows Product line as columns, Country as rows, and Quantity as the measure, the value at the intersection of each column and row shows the quantity of units sold for that product line and that country.

Quantity	Camping Equipment	Golf Equipment	Mountaineering Equipment	Outdoor Protection
Germany	103,412	6,410	27,584	39,006
Japan	3,562	7,158	3,330	28,172
United States	117,136	10,470	34,132	68,630
Summary	<b>224,110</b>	<b>24,038</b>	<b>65,046</b>	<b>135,808</b>

You can try [creating a crosstab report](#) yourself.

## Create a Crosstab Report

Use a crosstab report to show summary information. For example, you create a crosstab report to show quantity of units sold by product line for each country.

Like list reports, crosstab reports show data in rows and columns. However, the values at the intersection points of rows and columns show summarized information rather than detailed information.

### Steps

1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to use as the top row.



3. Click the pivot button on the toolbar.

The values of the selected report item are now column headings. The other report items become row headings, and the measure is now at the intersection of the two.



**Tip:** To change the crosstab report back to a list report, click the top row, and then click the ungroup button on the toolbar.

## Example - Create a Crosstab Report for Units Sold

You are a report author at the Great Outdoors Company, which sells sporting equipment. You are requested to create a report that shows the quantity of units sold for each product line in three specific countries. You reuse the grouped report that already contains the necessary data, and change the layout for improved analysis.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the ReportNet *Administration and Security Guide*.

You must also have created the example grouped list report (p. 20).

### Steps

1. Open the **Grouped Units Sold** report.
2. Click the heading of the **Country** column.



3. Click the pivot button on the toolbar.

The values of the Country column are now column headings. The values of the Product line column become row headings. The measure is at the intersection of the two.



4. Click the save as button on the toolbar.

5. In the **Name** box, type

**Crosstab Units Sold**

6. Leave the destination folder as **Public Folders**, and click **OK**.

Country: Germany, Japan, United States				
Quantity	Germany	Japan	United States	Summary
<b>Camping Equipment</b>	103,412	3,562	117,136	<b>224,110</b>
<b>Golf Equipment</b>	6,410	7,158	10,470	<b>24,038</b>
<b>Mountaineering Equipment</b>	27,584	3,330	34,132	<b>65,046</b>
<b>Outdoor Protection</b>	39,006	28,172	68,630	<b>135,808</b>
<b>Personal Accessories</b>	43,014	21,984	51,584	<b>116,582</b>
<b>Summary</b>	<b>219,426</b>	<b>64,206</b>	<b>281,952</b>	<b>565,584</b>

## Charts

Use charts to present information graphically.

A report requires at least one measure and one non-measure to produce a chart. Measures are quantitative data, such as figures for sales, costs, and quantities. Non-measures are qualitative data, such as names, addresses, and countries.

How the data is plotted depends on the chart type. The maximum number of non-measures is two. You can plot any number of measures in a report. However, a chart that has more than four or five measures is difficult to understand.

Query Studio charts plot the most summarized data in the report. Focus the chart by eliminating unnecessary measures from your report and reordering the columns (p. 27) so that the most significant non-measures are in the outer levels of nesting.

## SAP BW

In charts created using an SAP BW data source, if a query item contains currency values, the currency format may be lost in the chart. To restore the currency format, set the Format category of the query item to Currency.

In charts created against an SAP BW data source, if a query item contains values in multiple currencies, only the currency of the first value is applied to the chart.

## Choosing a Chart Type and Configuration

To choose a chart type, consider what you want the chart to illustrate. Different chart types and configurations emphasize different things.

Purpose	Chart type
Show contributions of parts to a whole	<a href="#">pie</a> <a href="#">clustered configuration</a> <a href="#">100% stacked configuration</a>
Show trends in time or contrast values across different categories	<a href="#">line</a> <a href="#">area</a> <a href="#">bar</a> <a href="#">column</a>
Compare groups of related information against actual values	<a href="#">clustered configuration</a> <a href="#">stacked configuration</a> <a href="#">radar</a> <a href="#">3D</a>
Compare different kinds of quantitative information	<a href="#">column line</a>

## Chart Types



### Pie Charts

Pie charts show the relationship of parts to the whole.

Pie charts highlight proportions, not values. If the actual values are important, use another chart type.

Pie charts can plot data using [standard](#), [100%](#), and [3D](#) configurations.

You can try creating a pie chart for sales yourself ([p. 25](#)).



### Column Charts

Column charts highlight individual values for easy comparison. Column charts can also show how data changes over time.

Column charts can plot data using [standard](#), [stacked](#), [100% stacked](#), and [3D](#) configurations.



### Bar Charts

Bar charts are unusual because, in contrast to most charts, they plot measures along the horizontal axis instead of the vertical axis. Therefore, they place less emphasis on time and focus on comparing values.

Bar charts can plot data using [standard](#), [stacked](#), and [100% stacked](#) configurations.



### Line Charts

Line charts plot data at equidistant points connected by lines to illustrate trends. When you move the pointer over a data marker in a line chart, a tooltip appears containing its label and value.

Because the data markers take up little space, use line charts to plot charts that have many measures. Line charts are commonly used to show trends over time.

Line charts can plot data using [standard](#), [stacked](#), [100% stacked](#), and [3D](#) configurations.



### Area Charts

Area charts emphasize the magnitude of change over time. When stacked, they also show the relationship of parts to a whole.

Area charts can plot data using [standard](#), [stacked](#), [100% stacked](#), and [3D](#) configurations.



### Column Line Charts

Column line charts compare two different measures. An additional quantitative axis appears on the right side of the chart.

Column line charts can plot data using [standard](#), [stacked](#), [100% stacked](#), and [3D](#) configurations.



### Radar Charts

Radar charts are used primarily as a comparative tool. Radar charts integrate multiple axes into a single radial figure. Measures are plotted on each axis and joined to adjacent axes by connecting lines.

Radar charts can plot data using [standard](#) and [stacked](#) configurations.

## Chart Configurations



### Standard Charts

Standard charts plot the actual value of each measure from a common base line. When you create charts using multiple measures, you can distinguish each measure by the color of its data marker.

For example, a standard column chart that has multiple measures plots the sales for each region to emphasize the actual value that each region achieves in sales.

**Note:** In area and radar charts that have multiple measures, the data markers for some measures can hide others.



### Stacked Charts

Stacked charts plot the relative value that each measure contributes to the total. You can distinguish each measure by the color of its section in the stack. The top of each stack represents the accumulated totals for each category.

For example, a stacked column chart that plots the sales for each region will emphasize the proportion that each region contributes to the total.

**Note:** In line charts that have multiple measures, it is difficult to distinguish between standard and stacked configurations.



### 100% Stacked Charts

100% stacked charts plot the relative contribution of each measure to the total, expressed as a percentage. You can distinguish each measure by the color of its section in the stack. The top of each stack represents 100 per cent.

For example, a 100% stacked column chart that plots the sales for each region will emphasize the percentage that each region contributes to total sales.

100% stacked charts highlight proportions, not figures. If the actual values are important, use another chart configuration.



### 3D Charts

3D column, bar, line, and area charts plot measures in three dimensions.

3D pie charts have an added three dimensional visual effect.

## Create a Chart

Use charts to see patterns and trends in data. For example, you can see how actual sales compare to projected sales, or whether sales are falling or rising over quarterly periods.

You can show just the chart, or the chart with the table appearing under the chart.

### Steps

1. Open the report that you want in Query Studio.
2. Reorder report items, if necessary.
3. Click the chart button on the toolbar.
4. In the **Chart type** box, click a chart style.
5. Click a chart configuration.
6. If you want to view only the chart, click **Chart only**.
7. If you want the values to appear on the chart, select the **Show the values on the chart** check box.
8. Click **OK**.

**Tip:** To remove a chart, click the chart button on the toolbar, and then in the **Chart** dialog box, click **None**.

## Example - Create a Pie Chart for Units Sold

You are a report author at the Great Outdoors Company, which sells sporting equipment. You are requested to create a chart that illustrates the relative contribution each product line makes to the quantity of units sold. You reuse the units sold report to create a pie chart that emphasizes the percentage contribution of each product line.

When the focus of a report is actual values, and not relative contribution, create a column chart.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the ReportNet *Administration and Security Guide*.

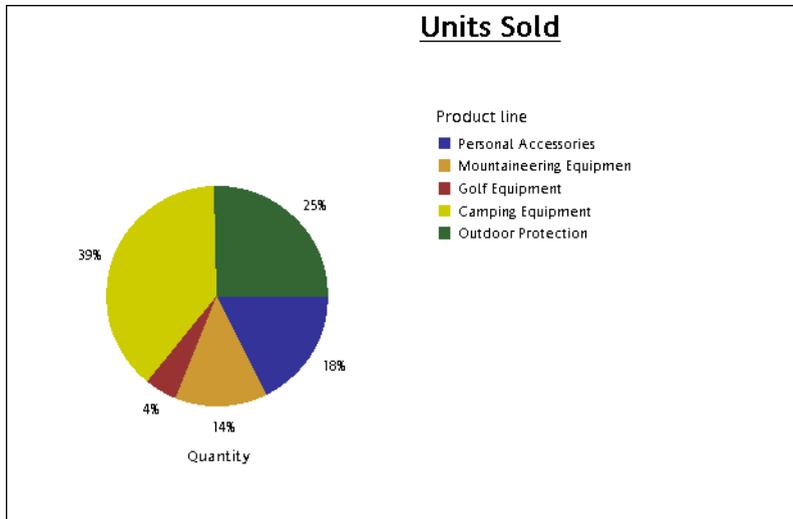
You must already have created the example report for sales ([p. 18](#)).

### Steps

1. Open the **Units Sold** report.
2. Click the chart button on the toolbar.
3. In the **Chart type** box, click **Pie**.
4. Click **100%**.
5. Select the **Show the values on the chart** check box.
6. In **Show the following in the report**, click **Chart only**, and then click **OK**.
7. Click the save as button on the toolbar.
8. In the **Name** box, type  
**Units Sold Pie**



9. Leave the destination folder as **Public Folders**, and then click **OK**.



## Changing the Appearance of Reports

You can change the appearance of your reports to make them easier to understand and interpret without changing the underlying data. For information about changing the data itself, see ["Working with Data"](#) (p. 31).

In ReportNet, you can change the appearance of reports by

- [changing the title](#)
- [collapsing or expanding a report](#)
- [reordering report items](#)
- [changing the heading name](#)
- [swapping rows and columns](#)
- [controlling the number of rows per page](#)

If you have the necessary permissions, you can use Report Studio to make more extensive changes, such as adding borders and modifying object properties. However, after you edit a report in Report Studio, you can no longer edit it in Query Studio. For more information, see the Report Studio *User Guide*.

### Change the Title

You can create your own descriptive report titles and subtitles.

By default, the link "Title" appears in a new report. Replace this with a more meaningful title, or remove it.

The title appears only in the report. Changing the report title does not change the report name that appears in Cognos Connection. For information about changing the report name, see the ReportNet *User Guide*.

#### Steps

1. Open the report that you want in Query Studio.
2. From the **Change Layout** menu, click **Edit Title**.
3. In the **Title** box, type a new title.
4. Click **OK**.

**Tips**

- To remove a title, delete all text in the **Title** box.
- To change the title without going through the menu, click the **Title** link.

**Change the Subtitle**

You can create your own descriptive report subtitles.

**Steps**

1. Open the report that you want in Query Studio.
2. From the **Change Layout** menu, click **Edit Title**.
3. Choose a subtitle option:
  - To create your own subtitle, type a subtitle in the **Subtitle** box.
  - To show no subtitle, make sure the **Subtitle** box is blank.
  - To use the names of filter values as an additional subtitle, select the **Show filters** check box.
4. Click **OK**.

**Collapse a Report**

You can view only the details you want by expanding and collapsing a report. Collapsing a report temporarily removes progressive levels of detail, making it easier to find and compare high-level summaries. Expanding a report restores the collapsed levels.

You can expand and collapse only those reports that contain grouping or crosstab reports that contain nesting.

You cannot collapse reports that contain custom groups (p. 34).

**Note:** There is no visible indication that a report is collapsed. For example, you collapse a report, and then save it. Another person can open the report later and not be aware that the report is collapsed.

**Steps**

1. Open the report that you want in Query Studio.
2. Click the collapse group button on the toolbar.
3. Repeat until you are at the required level of detail.



**Tip:** To expand a collapsed report, click the expand group button on the toolbar.

**Reorder Report Items**

You can reorder report items for easy comparison. For example, you can place a column of prices and a column of costs side by side. You may also want to change the column order to accommodate chart requirements.

You use cut and paste to reorder report items. If you paste a report item before a section, it becomes a section. If you paste a report item before a grouped column, it becomes grouped. If you paste a grouped column after an ungrouped column, it becomes ungrouped.

**Steps**

1. Open the report that you want in Query Studio.
2. Click the heading of the column that you want to move.
3. Click the cut button on the toolbar.
4. Click the heading of the report item before which you want to insert the column.





5. Click the paste button on the toolbar.

**Tip:** To position a column as the last column, paste with nothing selected.

## Change the Report Item Name

By default, the heading uses the name of the underlying item in the data source. You can change the heading to make it more meaningful. For example, you can rename a report item named ISO\_3\_Letter\_Code to Country.

Changing the heading name in the report does not change the name of the corresponding report item in the data source.

### Steps

1. Open the report that you want in Query Studio.
2. Double-click the heading of the report item that you want to rename.
3. In the **Name** box, type a new name.

**Tip:** To restore the original name, click the original name of the report item below the **Name** box.

4. Click **OK**.

## Swap Rows and Columns

You can interchange rows and columns in a crosstab, a chart based on a crosstab, or both. For example, if you have a crosstab report that has few rows and many columns, you can swap the rows and columns to make the report easier to read.

**Note:** You cannot swap rows and columns in a list report.

If you have multiple rows or columns in a crosstab report, the outermost rows become the outermost columns, and the outermost columns become the outermost rows.

### Steps



1. Open the report that you want in Query Studio.
2. Click the swap rows and columns button on the toolbar.

If you have both a chart and a crosstab report open, you can specify which to swap.

## Specify the Rows Per Page

You can specify the maximum number of rows of data to appear on the page.

By default, Query Studio shows 20 rows of data. The more rows that are retrieved, the more time that is needed to retrieve data. You can improve performance by showing fewer rows.

By setting the rows per page to a higher number, you can scroll up or down the report, eliminating the need to repeatedly page up and page down.

### Steps

1. Open the report that you want in Query Studio.
2. From the **Change Layout** menu, click **Set Web Page Size**.
3. In the **Number of Rows** box, specify the maximum number of rows you want to appear on a page.

**Tip:** To see row numbers in your report, click the **Show row numbers** check box.

4. Click **OK**.

## Report Administration

If you have the necessary permissions, you can use the Web portal to perform administrative tasks. You can

- schedule a report or a group of reports to run at a specific time
- distribute reports to other users
- select the language to use when a report is run
- maintain the history of a report
- maintain different versions of a report

For more information, see the ReportNet *Administration and Security Guide*.



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# Chapter 2: Working with Data

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You can control what data your report uses, as well as how it is formatted, calculated, and sorted. In Query Studio, you can

- [filter](#) the data to retrieve only the data you need
- organize the results by [sorting](#) and [grouping](#)
- [format](#) the data to determine how number, currency, date, and time values appear
- perform [calculations](#) using the data in your reports

## Filters

You can use a filter to specify the subset of records that the report retrieves. Any data that does not meet the criteria is eliminated from the report.

You can filter textual, numeric, or date and time data. When filtering measures, you can apply the filter to

- [details](#)
- [summaries](#) in reports that contain summaries
- [individual records in the database](#) for measures only

### Filtering Based On Report Details

When you filter on details, you filter the values that appear in the detail rows of your report.

Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>224,110</b>
Golf Equipment	Germany	6,410
	Japan	7,158
	United States	10,470
Golf Equipment		<b>24,038</b>
Mountaineering Equipment	Germany	27,584
	Japan	3,330
	United States	34,132
Mountaineering Equipment		<b>65,046</b>
Outdoor Protection	Germany	30,006

— detail rows

— footer

For example, you filter on details using as criteria all quantities greater than 100,000. The only data that matches this criteria are the detail rows for camping equipment sold in the United States and Germany.

Product line	Country	Quantity
Camping Equipment	Germany	103,412
	United States	117,136
Camping Equipment		<b>220,548</b>
Summary		<b>220,548</b>

### Filtering Based On Group Summaries

When you filter on summaries, you filter the values in the footers. Filtering on summaries eliminates groups from your report.

For example, if you filter on summaries using as criteria all quantities greater than 100,000, the groups Golf Equipment and Mountaineering Equipment are excluded from the report.

### Filtering Based On Individual Records in the Database

The following report shows the quantity of units of camping equipment sold in three countries. These actual figures do not exist in the data source. The numbers are aggregates, the result of totaling a number of individual records.

Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>224,110</b>

If you add another column to the report based on order numbers, it would look like this, listing the quantity of units sold for each individual order.

Product line	Country	Order number	Quantity
Camping Equipment	Germany	1668	42
	Germany	1669	64
	Germany	1671	70
	Germany	1672	68
	Germany	1673	26
	Germany	1674	10
	Germany	1675	58

When you use a filter based on individual records in the database, it is these underlying values that are filtered. For example, if you remove the order number column and then filter based on individual records using all quantities greater than 50 as criteria, you get the following results.

Product line	Country	Quantity
Camping Equipment	Germany	94,704
	Japan	386
	United States	39,656
Camping Equipment		<b>134,746</b>

Note that the quantity of units sold is now smaller because a filter based on individual records in the database includes only those orders where the quantity is greater than 50.

## Filter Data

You can create a filter that retrieves specific data, such as orders for a specific customer.

### Steps



1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to filter.
3. Click the filter button on the toolbar.
4. Choose how to filter the records:
  - Click the items you want to include.
  - Specify the range of values you want to include.
5. Click **OK**.

### Tips

- To remove a text filter, select the **Deselect all** check box. To remove non-text filters, delete all criteria in the **Filter** dialog box.
- By default, the values of any filters applied appear as an additional subtitle. To remove the filter values subtitle, from the **Change Layout** menu, click **Edit Title** and then clear the **Show filters** check box.

### Model Filters



Model filters are predefined in the model and cannot be edited. You can only insert or remove model filters. You can identify a model filter in left pane by its icon.

To add a model filter

- Double-click the filter in the left pane.

**Tip:** To remove a model filter, click the filter link, and then click **Remove**.

## Use a Prompt

Use a prompt when you want to use different criteria for the same report item each time the report runs. The report does not run until you choose the values.

For example, use prompts if you want multiple reports, each containing sales information for a different country.

Using prompts is faster and easier than repeatedly changing the filter.

The modeler can also set the type of prompt control that Query Studio generates when you run a report, such as an edit box or a list box that users can search for values.

If you use an SAP BW data source, the following prompts are not supported:

- Select Date Time
- Select Interval

### Steps



1. Open the report that you want in Query Studio.
2. Click the heading of the column you want to filter.
3. Click the filter button on the toolbar.
4. Select the **Prompt every time the report runs** check box.

Each time you open or run the report, you must choose or type in the desired filter values.

5. Click **OK**.

## Create Custom Groups

Create custom groups to produce a new report item containing values that are meaningful to you. Use custom groups to

- convert a list of numeric results into broader categories  
For example, break down sales results into Low, Medium, and High.
- reduce the number of values into a smaller, more meaningful set  
For example, change a list of employees into My Team and Others.

You cannot collapse a report that contains custom groups.

**Note:** If you use an SAP BW data source, custom groups are not available.

### Steps

1. Open the report that you want in Query Studio.
2. Click the heading of the report item for which you want to create a custom group.
3. From the **Edit Data** menu, click **Define Custom Groups**.
4. In **Customization type**, choose how to define the values:
  - To create a group of values based on individual items, click **Individual values**.  
In the **New group name** box, type a name, and click the down arrow link to add it to the **Custom groups** box. In the **Available values** box, click the values you want, and click the left arrow link to add them to the **Custom group values** box.
  - To create a group of values by defining a range, click **Ranges**.  
In the **New range name** box, type a name. In the **From** and **To** boxes, specify the criteria you want, and click the arrow link to add to the **Ranges (in sequential order)** box.
5. In the **Item name** box, type a name for your report item.
6. Click **OK**.

## Example - Create a Custom Group for North America

You are a report author at the Great Outdoors Company, which sells sporting equipment. You often work with data about your North American customers, so you want to create a value that combines Canada, Mexico, and the United States into one value.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the *ReportNet Administration and Security Guide*.

You must also have created the example grouped list report ([p. 20](#)).

### Steps

1. Open the **Grouped Units Sold** report.
2. Click the heading of the **Country** column.
3. From the **Edit Data** menu, click **Define Custom Groups**.
4. In the **New group name** box, type  
**North America**
5. Click the down arrow link to add it to the **Custom groups** box.
6. In the **Available values** box, click **Canada**.
7. Click the left arrow link to add it to the **Custom group values** box.
8. Repeat steps 6 to 7, clicking **Mexico** and **United States**.
9. In the **New group name** box, type  
**Others**
10. Click the down arrow link to add it to the **Custom groups** box.

11. Scroll to the bottom of the **Available values** box and click **Remaining values (includes future values)**.
12. Click the left arrow link to add it to the **Custom group values** box.

This creates a new custom group named **Others** that includes all values that do not belong to the custom group **North America**

13. Click **OK**.

A new column **Country (Custom)** appears, containing the value **North America**.



14. Click the **save as** button on the toolbar.

15. In the **Name** box, type  
**Custom Group Example**

16. Leave the destination folder as **Public Folders**, and click **OK**.

Product line	Country	Country (Custom)	Quantity
Camping Equipment	Germany	Others	103,412
	Japan	Others	3,562
	United States	North America	117,136
Camping Equipment			<b>224,110</b>
Golf Equipment	Germany	Others	6,410
	Japan	Others	7,158
	United States	North America	10,470
Golf Equipment			<b>24,038</b>
Mountaineering Equipment	Germany	Others	27,584
	Japan	Others	3,330
	United States	North America	34,132

## Sort Data

Sorting organizes your data in either ascending or descending alphabetical or numeric order. For example, you can sort on a column that lists product sales in descending order to rank product sales from the highest to the lowest.

When sorting grouped data, you can choose to sort the detail values or you can sort the summary values in the footers.

### Steps

1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to sort on.
3. From the **Edit Data** menu, click **Sort**.
4. In the **Sort** dialog box, choose the desired sort options.
5. Click **OK**.



A small up or down arrow in the heading indicates sorted data.

**Tip:** To remove sorting, from the **Edit Data** menu, click **Sort**, then under **Sort order**, click **Don't sort**, and click **OK**.

## Group Identical Values

If a column in a report contains multiple instances of the same value, you can group these identical values together.

Grouping and ungrouping may change the order of the report items. Sections must precede grouped columns, and grouped columns must precede ungrouped columns.

You cannot group measures. You can group only report items containing text data or non-measure numeric data, such as order numbers.

### Grouping

Grouping reorders the rows of a selected report item so that identical values appear together and suppresses the display of duplicates.

Each group shows footer values for report items that have footer summarization turned on.

Product line	Country	Quantity
Camping Equipment	Germany	103,412
	Japan	3,562
	United States	117,136
Camping Equipment		<b>224,110</b>
Golf Equipment	Germany	6,410
	Japan	7,158
	United States	10,470
Golf Equipment		<b>24,038</b>
Mountaineering Equipment	Germany	27,584
	Japan	3,330
	United States	34,132
Mountaineering Equipment		<b>65,046</b>
Outdoor Protection	Germany	39,006
	Japan	28,172
	United States	68,630

### Creating Sections

Creating sections shows the value of a selected report item as the heading of a section.

If you create a chart for a report that is grouped in section headings, one chart appears for each section.

<b>Product line : Camping Equipment</b>	
Country	Quantity
Germany	103,412
Japan	3,562
United States	117,136
Camping Equipment	<b>224,110</b>
<b>Product line : Golf Equipment</b>	
Country	Quantity
Germany	6,410
Japan	7,158
United States	10,470
Golf Equipment	<b>24,038</b>
<b>Product line : Mountaineering Equipment</b>	
Country	Quantity
Germany	27,584

### Steps

1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to group by.
3. Choose how you want to group:



- To group, click the group button on the toolbar.

The report suppresses duplicate values of the selected report item and lists the values in each group.



- To create sections, click the create sections button on the toolbar.



### Tips

- To ungroup, click the original item heading and then click the ungroup button on the toolbar.
- To remove the subtotals in a grouped report, click the summarize button on the toolbar, and then, in the **Summary for footers** box, click **None**.



## Turn Off Automatic Summarization

Query Studio automatically suppresses duplicates. For example, if you add the report items Product Line and Country to a report, Query Studio will only show each unique combination of Product Line and Country once, rather than show all combinations that occur.

Query Studio also automatically summarizes detail values. For example, if you add the report items Product Line and Quantity to a report, you get one row for each Product Line, with the Quantities summarized for that Product Line, rather than thousands of rows, showing each individual record.

Query Studio also automatically generates footer summaries for measures. For example, if you add the report items Product Line and Quantity to a report, you get an overall total for Quantity at the bottom of the report.

Product line	Quantity
Personal Accessories	389,908
Mountaineering Equipment	301,958
Golf Equipment	99,400
Camping Equipment	866,234
Outdoor Protection	557,854
Summary	<b>2,215,354</b>

These defaults make the presentation of reports more convenient for users, but can also make the report run slower or produce unexpected results. You can change these defaults.

**Note:** This changes the normal behavior of Query Studio, and can affect the usability of reports.

Product line	Quantity
Personal Accessories	389,908
Mountaineering Equipment	301,958
Golf Equipment	99,400
Camping Equipment	866,234
Outdoor Protection	557,854

If you turn off the automatic generation of footer summaries for measures, the report looks like this.

You can also turn off the automatic suppression of duplicates and summarization of detail values.

Product line	Quantity
Camping Equipment	84
Camping Equipment	126
Camping Equipment	122
Camping Equipment	122
Camping Equipment	272
Camping Equipment	232
Camping Equipment	104
Camping Equipment	130
Camping Equipment	50
Camping Equipment	170
Camping Equipment	100
Camping Equipment	42
Camping Equipment	120
Camping Equipment	84

If you turn off the automatic suppression of duplicates and the summarization of detail values, the report looks like this.

### Steps

1. From the **Run Report** menu, click **Advanced Query**.
2. In the **Advanced Query Options** dialog box, choose an option:
  - To turn off the automatic generation of footer summaries for measures, clear the **Automatically generate footer summaries for measures** check box.
  - To turn off the automatic suppression of duplicates and the summarization of detail values, clear the **Automatically summarize detail values, suppressing duplicates** check box.
3. Click **OK**.

## Change the Data Format

You can use predefined formats to change the appearance of numbers, dates, and times without changing the underlying data. For example, you can show a date in abbreviated format or in long format, which spells out the day and month.

If you use an SAP BW data source, units of measure are included in the same column as the data values, separated by one space. For example, Celsius and Fahrenheit notations are appended to the end of the value. This format is maintained in ReportNet and appears in Query Studio.

Note that an asterisk character (\*) designates

- an unknown currency
- a value that represents an unknown unit of measure, such as a mixed currency calculation or rollup

### Default

The default format is the format of the report item before any formatting is applied in Query Studio. Use default to remove formatting.

### Number

Use the number format to change the number of decimal places, to specify whether to use a thousands separator, to choose different symbols to represent negative numbers, and to scale large numbers.

### Currency

You can choose from many world currencies. Use either the currency symbol or the international code. For example the currency symbol for the euro is € and the international code is EUR.

You can also change the number of decimal places, specify whether to use a thousands separator, choose different symbols to represent negative numbers, and to scale large numbers.

### Percentage

This format shows a number multiplied by 100, using two decimal places and a percent sign. For example, 0.7356 appears as 73.56%.

### Scientific

This format shows a number in exponential notation. For example, the number 224,110 is 2.24110E+05 in scientific notation.

### Date and Time

You can choose from a list of date and time formats, including the 12 or 24 hour clock.

### Steps

1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to format.
3. From the **Edit Data** menu, click **Format**.
  - To format numeric data, in the **Category** box, click a type and define the format as required.
  - To format text data, in the **Category** box, click **Text** and type a number in the **Number of visible characters** box.
  - To format date and time data, in the **Category** box, click a type and then in the **Type** box, click a format.
4. Click **OK**.

## Calculations

You can perform many types of calculations in Query Studio. For example, you can calculate the sum or average of the values in one column, or multiply the values in two columns.

Calculation results are not stored in the underlying data source. Instead, Query Studio reruns the calculation each time you run the report. The results are always based on the most current data in the data source.

**Note:** If you use a SAP BW data source, the functions available when creating calculations are restricted by functions available in SAP BW.

You can perform calculations in Query Studio by [adding summaries](#) or by [adding calculations](#).

### Summaries

Use the Summarize command to add or remove footer values, or to change how detail values are calculated. For example, use the Summarize command to place an average in each footer.

### Calculations

Use the Calculate command to create new report items using data from one or more report items. For example, use the Calculate command to add together several columns in a list report.

## Add a Summary to a Report

You can use predefined summaries to calculate the total, count, maximum, minimum, or average of the values in individual report items.

You can apply a summary to

- detail values

These values appear in the detail rows of your report. This functionality is available only if the data in a report item is a measure.

- summary values

These values appear in footers.

The summaries available depend on the type of data in the selected report item. For example, the only summary you can use with text data is Count.

There is no visible indication that a summary is applied. For example, you apply the predefined summary function Average, and then save the report. Someone can open the report later and not be aware that the summary figures shown are averages, not totals.

Query Studio provides the following predefined summary functions.

Function	Description
Total	Returns the sum of a set of values.
Count	Returns the total number of records.
Maximum	Returns the maximum value. When applied to date or time data, this returns the latest value.
Minimum	Returns the minimum value. When applied to date or time data, this returns the earliest value.
Average	Returns the average of a set of values.
None	Removes footers. This applies only to footer values, not details.

### Advanced Summaries

You can use the advanced summaries feature to apply one summary calculation to the detail values and a different summary calculation to the footer values.

In most calculations, the default order of operations for detail values is summarize first, then calculate.

However, if a calculation involves two or more columns that have different detail summaries applied, the default order of operations is calculate first, then summarize. For example, you create the calculated column SALES using the formula PRICE (averaged) \* QUANTITY (totaled).

For footer values, the default order of operations for most calculations is also summarize first, then calculate. However, there are two exceptions when the default order of operations is calculate first, then summarize:

- If a calculation involves two or more columns that have different detail summaries applied, the default is calculate first, then summarize. For example, you create the calculated column SALES using the formula PRICE (averaged) \* QUANTITY (totaled).
- If a calculation involves a single column that is totaled, and a constant is added to this column. For example, you create the calculated column SALES + 1.00.

### Steps



1. Open the report that you want in Query Studio.
2. Click the heading of the report item you want to summarize.
3. From the **Edit Data** menu, click **Summarize**.
4. In the **Summary for footers** box, click the function you want.

If you want to apply one summary calculation to the detail values and a different summary calculation to the footer values, or you want to change the default order of operations in a calculated column, click the **Advanced** link.

5. Click **OK**.

**Tip:** To remove a summary, in the **Summary for footers** box, click **None**.

## Add a Calculation to a Report

You can perform calculations in a report using data from one or more report items. For example, you can multiply the values of a salary column by 1.05 to see the results of a 5 percent increase. You can also concatenate first names and last names into a single column.

You cannot edit a calculation. Instead, you must delete the calculated report item and recalculate it.

You can see the syntax of the calculation in the Expression box of the Calculate dialog box. You can also see the expression used in a calculation by [viewing the report definition](#).

If you have the necessary permissions, you can use Report Studio to perform more complex calculations. However, after you edit a report in Report Studio, you can no longer edit it in Query Studio. For more information, see the Report Studio *User Guide*.

If an expression is used in multiple reports, or by different report authors, ask your modeler to create the expression as a model object and include it in the relevant package.

**Note:** If you use an SAP BW data source, date arithmetic is not supported. For example, you cannot subtract two dates.

<b>Arithmetic operations</b>	<b>Description</b>
+ (sum)	Adds the values of the selected report items
- (difference)	Subtracts the values of one selected report item from another
* (product)	Multiplies the values of the selected report items
/ (division)	Divides the values of the selected report items
^ (power)	Raises the values of the selected report item to an exponent
Absolute	Calculates the absolute value of the numbers in the selected report item
Round	Rounds the values in the selected report item to the nearest integer
Round down	Rounds the values in the selected report item to the next lowest integer
Square Root	Calculates the square root of the values in the selected report item

<b>Percentage operations</b>	<b>Description</b>
%	Calculates the value of a selected report item as a percentage of another report item.
% of total	Calculates each value of a selected report item as a percentage of the total. For grouped reports, returns each value as the percentage of the group total or the overall total.
% difference	Calculates the difference between two report items as a percentage.

<b>Analytic operations</b>	<b>Description</b>
Average	Calculates the average of values in the selected report items.
Maximum	Calculates the largest of the values in the selected report items.
Minimum	Calculates the smallest of the values in the selected report items.

Analytic operations	Description
Rank	Returns the rank of each value in the selected report item. For grouped reports, it can return the rank of each value in a group or within all values.
% of total	Calculates each value of a selected report item as a percentage of the total. For grouped reports, returns each value as the percentage of the group total or the overall total.
Percentile	Returns a percentile of values. For grouped reports, it can return the percentile for each value in a group or within all values.
Quartile	Returns the quartile of values. For grouped reports, it can return the quartile for each value in a group or within all values.
Quantile	Returns the quantile of values. For grouped reports, it can return the quantile for each value in a group or within all values.

### Steps

1. Open the report that you want in Query Studio.
2. Click the headings of the report items you want to include in the calculation.
3. Click the calculate button on the toolbar.
4. In the **Operation** box, click the type of operation you want to perform.  
Depending on the selected data, you may first need to choose an operation type from the **Operation type** box.
5. Choose which data to use for the calculation:
  - To use the data in existing report items, in the **Selected report items** box, click the report items you want.
  - To use other data, in the **Number** box, specify a number.
 Depending on the calculation you choose, you may see additional options, such as changing the order of the operands, typing in a number, or choosing a grouping level.
6. Click **Insert**.  
The calculated results appear in a new column. By default, the expression used in the calculation is used as the heading name.



### Tips

- To make the name of the calculated column more meaningful, type a new name in the **New item name** box.
- To concatenate text into a single column, use the **Concatenation** operation.

## Example - Calculate Units Sold in Each Country as a Percentage of the Total

You are a report author at the Great Outdoors Company, which sells sporting equipment. You are requested to create a report that shows the quantity of units sold for each product line in three specific countries as a percentage of the total. You reuse the grouped sales report that already contains the necessary data, and add a calculation that shows the percentage of the total.

It becomes obvious in your report that camping equipment accounts for nearly 40 percent of the total units sold for these three countries.

Before you can try this example, you must set up the sample packages that come with ReportNet. For more information, see the ReportNet *Administration and Security Guide*.

You must also have created the example grouped list report (p. 20).

**Steps**

1. Open the **Grouped Units Sold** report.
2. Click the heading of the **Quantity** column.
3. From the **Edit Data** menu, click **Calculate**.
4. In the **Operation type** box, click **Percentage**.
5. In the **Operation** box, click **% of total**.
6. Leave the default as **Based on the overall total**.
7. Click **Insert**.



The calculated results appear in a new column, with the expression **% of total (Quantity)** used as the heading.



8. Click the save as button on the toolbar.
9. In the **Name** box, type

**Calculated Column Example**

10. Leave the destination folder as **Public Folders**, and click **OK**.

Product line	Country	Quantity	% of total (Quantity)
Camping Equipment	Germany	103,412	18.28%
	Japan	3,562	0.63%
	United States	117,136	20.71%
Camping Equipment		<b>224,110</b>	<b>39.62%</b>
Golf Equipment	Germany	6,410	1.13%
	Japan	7,158	1.27%
	United States	10,470	1.85%
Golf Equipment		<b>24,038</b>	<b>4.25%</b>
Mountaineering Equipment	Germany	27,584	4.88%

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# Appendix A: Samples

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ReportNet includes the following samples, based on the GO Sales and Retailers package. You can find them in the Query Studio Report Samples folder.

## Expand and Collapse

This report uses a grouped list to demonstrate the Collapse Group command.

## High Margin Product Types

This report filters product type groups based on whether the average % margin for the group falls within the prompted value range. You can run the report using different value ranges.

## Low Revenue Products

This report shows products whose total revenues account for less than 5% of product type revenues. The Revenue Percent column was created as a calculation from the Revenue column.

## Product Line % Margin Comparison Chart

This report uses a pie chart to compare product line % margins.

## Product Line Revenue Chart

This report uses a column chart to present product line revenues. The chart is ordered by revenue, with product lines appearing in order from the highest to the lowest.

## Returns by Order Method

This report shows the % of revenue lost by return orders. You can find step by step instructions for this report in the Getting Started tutorial.

## Web Product Sales

This report shows product sales for orders placed on the corporate Web site versus all other order methods. The Web and Other values were created from the Order method column using the Define Custom Groups command. The group totals show the average quantity, maximum revenue, and minimum profit.



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# Appendix B: Troubleshooting

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You can use the Report Definition command on the Manage File menu or the Query Information command in the Report Definition box to troubleshoot problems with your reports. The Report Definition command shows the expression for each report item. The Query information command shows the query information for each report item.

**Note:** You cannot change the report properties using these tools.

You can find more troubleshooting topics in the ReportNet *Troubleshooting Guide*.

## No Data Appears in the Report

You open a saved report, and no data appears. There are two possible reasons. The package or the connection to the data source may no longer be functioning. Alternatively, a filter may exclude all data. For example, if all sales in your region are below 1 million, and you create a filter to show only sales greater than 1 million, your report is empty.

### Steps to Check Data Source or Package

1. Click the new report button on the toolbar.
2. Add a column to the report from the data source.

If no data appears, the problem is with the package or the data source. Contact your administrator.

### Steps to Check Filters

1. From the **Change Layout** menu, click **Edit Title**.
2. Select the **Show filters** check box and click **OK**.

The report reappears. If one or more filters appear in the subtitle area, click the filters to edit them.

## Incorrect or Unexpected Values Appear in the Report

You open a saved report, and incorrect or unexpected values appear. One possible cause is that the report is run with limited data.

**Tip:** When a preview uses limited data, a torn border appears at the top and bottom of the report.

To run the report using all data, click the run button on the toolbar.

Another possible cause is that the report item is improperly named. Renaming report items can produce misleading results. For example, if Units Sold is accidentally renamed to Units Returned, it can produce unexpected results.

**Tip:** To check for the original name of a report item, double-click the heading of the report item and note the original name in the **Rename** dialog box.

Another possible cause is that the report is run with summarized data, which means it uses total, count, average, minimum, or maximum. There is no visible indication that a report item is summarized.

### Steps to Check for Summarized Data

1. Click the heading of the report item that contains the incorrect or unexpected values.
2. From the **Edit Data** menu, click **Summarize**.
3. Click **Advanced**.

If the values in the report item are summarized, you see the type of summarization in the **Summary for footers** or **Summary for cells** boxes.

## Remove Filter Value Subtitles

By default, the values of any filters applied in a report appear as an additional subtitle. You want to remove these, but cannot find the appropriate command in the Filter dialog box.

### Steps to Remove Filter Value Subtitles

1. From the **Change Layout** menu, click **Edit Title**.
2. In the Edit Title dialog box, clear the **Show filters** check box and click **OK**.

## Printed Report is Unsatisfactory

Printing HTML may produce unsatisfactory results. For best results, use the View in PDF Format command, and then print the PDF. This alternative gives you more control over such things as pagination than the browser does.

## Problem When Printing PDF

You print a document in PDF format, but the print job is incomplete. For example, the job stops printing when it reaches a particular graphic.

This is an Adobe Acrobat Reader issue that can occur when printing some PDFs using some versions of Acrobat Reader and some printer models. The same PDF may print correctly under one or both of the following conditions:

- using a different version of Acrobat Reader
- using a different printer

If you print from an Acrobat 4.0 or later product, you can try the following solution.

### Steps to Force a Page to Print as an Image

1. In Acrobat Reader, from the **File** menu, click **Print**.
2. In the **Printer** section, select the **Print as image** check box.

Because files print more slowly using this option, make sure you specify only the nonprinting page.

3. In the **Print Range** section, click **Pages from** and **Pages to**, type only the page number of the nonprinting page, and then click **OK**.

You can print the rest of the PDF by resending the job starting on the next page.

4. Clear the **Print as image** check box.
5. In the **Print Range** section, click **Pages from** and **Pages to**, type the page range for the remaining pages, and then click **OK**.

Although you can use the **Print as image** option to print the file, this setting does not resolve the original printing problem. For more information, see the Adobe Web site.

## Cannot Collapse the Report

You use the Collapse Group command, but the report does not collapse. This command does not work if you have a custom group in your report.

## Report Does Not Appear in XML Format

You use the View In XML Format command, but the report does not work. Check whether the report you want to view as XML is a chart or a crosstab. You cannot view charts or crosstab reports in XML format.

Another possible cause is that you use Netscape 7, which does not render XML directly.

### Steps to View a Report in XML Format Using Netscape

1. Right-click the blank page, and click **View Page Source**.  
A window appears that shows the XML in text form.
2. Copy the XML, and paste it into an application that renders XML directly.

## CSV File Has No Commas

Comma Separated Values (CSV) is a term that is familiar to many North American users. It refers to text items separated by commas. CSV format, however, does not work well in countries where the decimal point is a comma. To make this feature more international, Query Studio uses tabs rather than commas to separate text values in CSV files. The term CSV is retained for its recognition value.

## Report Filter Does Not Work

A report may be created in one language, and then run in a different language. When you filter for specific values on multilingual query items, the filter does not recognize the values because they exist only in the original language.

When creating filters in multilingual reports, try to use non-multilingual query items, such as numerical identifiers, for the search criteria, because they are applicable in all languages. For example, use the product code rather than a multilingual product name.

## Running Total in Grouped Reports Gives Unexpected Results

You have a running total calculation in a grouped report that returns unexpected values.

Because tabulation of the running total calculation depends on the order in which the grouping is executed, you must ensure that the grouped totals are tabulated before applying the running total.

To ensure that the grouping is executed in correct order, define a running total calculation as a freestanding calculation outside the query subject in Framework Manager, and ensure that the Regular Aggregate property is set to Automatic.

This may also be an issue with other running, moving, and ranking aggregations.



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# Appendix C: Producing Reports in Microsoft Excel Format

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The following limitations exist when producing reports in Microsoft Excel format using Cognos ReportNet. Some limitations apply to both Query Studio and Report Studio, and some apply to Report Studio only.

## Microsoft Excel Limitations

The following issues were identified in Microsoft Excel and affect producing Cognos ReportNet reports in Excel format.

### Unable to Load Images from the ReportNet Content Store in a Report

If a report contains an image whose URL points to the ReportNet content store, Microsoft Excel generates an access violation error and shuts down.

This problem is a known issue in the Microsoft knowledge base, and Microsoft is currently investigating the problem. This problem occurs only in Excel 2000 and 2002.

### Blank Worksheet is Opened

If Microsoft Excel cannot download a worksheet within a timeout period, Excel may instead open a blank worksheet.

### Warning Message Appears When Excel Opens a ReportNet Report

Each time Microsoft Excel opens a ReportNet report, the following message appears:

Some of the files in this Web page aren't in the expected location. Do you want to download them anyway? If you're sure the Web page is from a trusted source, click Yes.

This is normal Excel behavior.

### Loading Excel Reports in Netscape 7.01 is Not Supported

This version of ReportNet does not support loading Microsoft Excel reports in Netscape 7.01.

### Nested Labels in Charts Are Not Supported

Currently, it is not possible to specify nested labels for the category axis via XML.

### Data Series Are Truncated

Microsoft Excel may show data series or categories grouped differently when compared to a chart produced by ReportNet.

Excel limits the maximum number of data series per chart to 255. Data series over 255 are truncated.

## Formatting Limitations

About 70% of the formatting functions available in ReportNet are supported in Microsoft Excel. The following table shows which formatting functions are supported in Excel and which are not.

<b>ReportNet format</b>	<b>Supported in Excel</b>	<b>Notes</b>
Currency	✓	
Currency Symbol	✓	
Decimal Separator	x	Excel does not allow changing locale-dependent formatting attributes.
Exponential Symbol	x	Excel does not allow changing locale-dependent formatting attributes.
Format Width	x	Not required. Excel automatically adjusts the width.
Group Separator	x	Excel does not allow changing locale-dependent formatting attributes.
Group Size	✓	
International Currency Symbol	x	
List Separator	x	Not required. Excel automatically adjusts the width.
Maximum Fraction Digits	✓	
Maximum Integer Digits	✓	
Minimum Exponent Digits	✓	
Minimum Fraction Digits	✓	
Minimum Integer Digits	✓	
Minus Sign	✓	
Monetary Decimal Separator	x	Excel does not allow changing the locale-dependent formatting attributes.
Multiplier	x	Not supported by Excel.
Negative Prefix	✓	
Negative Suffix	✓	
Pad Character	✓	
Percent Symbol	x	Not supported by Excel.
PerMill Symbol	x	Not supported by Excel.
Plus Sign	x	
Positive Prefix	✓	

<b>ReportNet format</b>	<b>Supported in Excel</b>	<b>Notes</b>
Positive Suffix	✓	
Scale	x	Excel has a different scaling formula than ReportNet.
Secondary Grouping Size	✓	
When Negative	✓	
WhenZero	✓	
Use Currency Symbol	✓	
Use Grouping	✓	
Use Scientific	✓	
Use Trailing Currency Symbol	✓	
Use Trailing Sign	✓	
AM String	x	Excel does not allow changing locale-dependent formatting attributes.
Calendar	x	Excel does not allow changing the calendar.
Date Separator Symbol	✓	
Day Name	x	Excel does not allow changing locale-dependent formatting attributes.
Day Short Name	x	Excel does not allow changing locale-dependent formatting attributes.
Decimal Delimiter Symbol	x	Excel does not allow changing locale-dependent formatting attributes.
Era Name	x	Not supported by Excel.
First Day Of Week	x	Not supported by Excel.
Month Name	x	Excel does not allow changing locale-dependent formatting attributes.
Month Short Name	x	Excel does not allow changing locale-dependent formatting attributes.
PM String	x	Excel does not allow changing locale-dependent formatting attributes.
Symbol Display Order	✓	
Time Separator Symbol	✓	
Show AmPm Symbol	✓	
Show Century	✓	

<b>ReportNet format</b>	<b>Supported in Excel</b>	<b>Notes</b>
Show Clock	✓	
Show Days	✓	
Show Era	x	Not supported by Excel.
Show Hours	✓	
Show Milliseconds	✓	
Show Minutes	✓	
Show Months	✓	
Show Seconds	✓	
Show Time Zone	x	ReportNet does not use this property.
Show Weekday	✓	
Show Years	✓	

## Overline Text Format

Microsoft Excel does not support the overline text format.

## Reports With More Than 256 Columns

Microsoft Excel limits the size of a worksheet size to 65536 rows by 256 columns. If your report contains more than 65536 rows, it is split into multiple worksheets. The number of worksheets that your report can contain is limited by the physical memory of your computer. If your report contains more than 256 columns, the following error occurs:

Reports with more than 256 columns cannot be rendered in Excel.

## Table and Column Width

Microsoft Excel does not support using percentages to determine the width of tables. If the report contains only one table, the value of the width attribute for the Table element in the report specification determines the width of the table in the Excel worksheet. If the report contains more than one table, Excel determines the width of all the tables in the worksheet. If the tables are nested, the width specified for the outer table is used and, if necessary, the width is adjusted to accommodate data in the nested tables. The columns and rows around the table are merged to preserve the appearance of the nested table. When the workbook is saved, only a single table is saved per worksheet.

## Using Secure Socket Layer (SSL)

Excel output is not available if your Web server and ReportNet are enabled for SSL.

## ReportNet Limitations

The following ReportNet limitations exist when producing reports in Excel format.

## Copying or Moving Saved Reports

If you copy or move a report saved in Content Manager, the report will not load correctly in Microsoft Excel because of problems with resolving URLs to the spreadsheets. Excel spreadsheets are stored in Content Manager as objects of type graphics.

For more information about URL links to Excel reports, see the ReportNet *Troubleshooting Guide*.

## Accessing Reports on a Remote Server

To access a report in Excel format on a remote server, you must change the hostname portion of the gateway URI from localhost to either the IP address of the computer or the computer name. You do this using Cognos Configuration.

## Drill-Through Reports

ReportNet does not support drill-through for reports in Excel format.

## Formats Not Supported for Reports in Excel Format

ReportNet does not support the following for reports in Excel formats:

- background images in table cells
- Excel headers and footers
- text flow and justification
- floating text objects
- white space, normal, and wrap text formatting
- maximum characters

Some layouts do not show exactly in HTML and PDF due to Microsoft Excel limitations.

## Hyperlink Buttons

Microsoft Excel does not support hyperlink buttons.

## Emailing Reports in Excel Format

ReportNet can send Excel reports in HTML and XML format by email. However, the Excel email attachments must be saved to your computer before you can view them.

## Charting Support in Excel and ReportNet

The following ReportNet chart properties are not supported in Microsoft Excel:

- tool tips
- conditional text
- depth
- visual angle
- show values
- marker text location
- show baseline
- new note
- new marker
- truncation text and allow n-degrees rotation category labels
- border
- margin
- box type
- font and font alignment

In addition, ReportNet makes sure that Excel reuses the same color palette that is defined in ReportNet. However, Excel can only use the first 16 colors from the ReportNet palette. If the number of categories in a chart exceeds 16, the rest of the colors are taken from the default Excel palette.

About 70% of the chart types available in ReportNet are matched in Microsoft Excel. The following table shows which chart types are supported in Microsoft Excel 2000 and later and which are not.

<b>Chart type</b>	<b>Chart sub type</b>	<b>Supported in Excel</b>	<b>Notes</b>
Column	Column	✓	Similar
	Column 3D	✓	Results are better in HTML
	Stacked	✓	Similar
	Stacked 3D	✓	Results are better in HTML
	100% stacked	✓	Similar
	100% stacked 3D	✓	Chart is viewed from a different angle
	3D axis	✓	Similar, but category data is presented in the reverse order
Bar	Bar	✓	Similar
	Bar 3D	✓	Similar
	Stacked	✓	Similar
	Stacked 3D	✓	Similar
	100% stacked	✓	Similar
	100% stacked 3D	✓	Similar
Pareto	Stacked column	x	
	Stacked column 3D	x	
	Stacked bar	x	
	Stacked bar 3D	x	
Line	Line with markers	✓	Similar
	Line	✓	Similar
	Line 3D	✓	Shows as a Line 3D axis chart
	Stacked line with markers	✓	
	Stacked line	✓	Similar
	Stacked line 3D	✓	Shows as a stacked line
	100% stacked line with markers	✓	Similar
100% stacked line	✓	Similar	

<b>Chart type</b>	<b>Chart sub type</b>	<b>Supported in Excel</b>	<b>Notes</b>
	100% stacked line 3D	✓	Shows as 100% stacked line
	3D Axis	✓	Similar
Pie	Pie	✓	ReportNet shows many types of pie charts, Microsoft Excel shows only one type
	Pie 3D	✓	Microsoft Excel shows the pie chart at a different angle
	Donut	✓	Microsoft Excel may fill in the donut hole to accomodate extra measures
	Donut 3D	x	Shows as a donut chart
Area	Area	✓	Similar
	Area 3D	✓	Shows a smaller version of an Area 3D axis chart
	Stacked area	✓	Similar
	Stacked area 3D	✓	Shows at a different angle
	100% stacked area	✓	Similar
	100% stacked area 3D	✓	Shows at a different angle
	3D Axis	✓	Similar
Point	Scatter	✓	Similar
	Bubble	✓	Similar but actual details on the chart may differ slightly
	Quadrant	x	
	Polar	x	
Radar	Radar with markers	✓	Similar
	Radar	✓	Returns Radar with markers
	Area radar	✓	Microsoft Excel names this chart type Filled radar
	Stacked area radar	x	
Combination	Combination	✓	
	Combination 3D	x	
	Stacked combination	✓	
	Stacked combination 3D	x	

<b>Chart type</b>	<b>Chart sub type</b>	<b>Supported in Excel</b>	<b>Notes</b>
	100% stacked combination	✓	
	100% stacked combination 3D	x	Returns 100% stacked combination
	3D axis	x	Returns Combination



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# Glossary

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## **Cognos Connection**

The portal interface of ReportNet.

## **columns**

In reports, a report item that shows data in a vertical list. In a model, query items represent columns.

## **content language**

The code or setting that specifies what language and regional preferences to use for the data that appears in a report.

## **CSV**

A file format that contains text data, where the fields in each record are separated by a character, such as a comma or a tab. In ReportNet, each record is separated by a tab.

## **data source**

In ReportNet, the package from which information is retrieved for a report.

## **heading**

The area that appears at the top of a column or before a section that contains the name of the report item. You click the heading to select the report item.

## **measure**

A query item that contains values that can be aggregated to produce meaningful results. For example, product costs can be treated as a measure because average and total costs have some meaning, but product codes, though numbers, are not usually treated the same way.

Measures are quantitative performance indicators. Measures give the numbers that usually appear in the cells of crosstab reports or in the numbers of a chart.

Measures are also known as facts.

## **model**

A business presentation of the structure of the data from one or more databases. A model describes data objects, structure, and grouping, as well as relationships and security.

A model, called a design model, is created and maintained in Framework Manager. The design model or a subset of the design model must be published to the ReportNet server as a package for users to create and run reports.

## **PDF**

Portable Document Format. A file format that maintains the formatting of the original document without the program and fonts that were used to create it. In ReportNet, you, can view, print, and distribute reports using this format.

## **package**

A container for models, reports, and so on. Modelers create packages in Framework Manager to publish models to the ReportNet server.

**portal**

A Web site or page that provides a single presentation and a single starting point for a set of information. Also, the Cognos component that runs the Cognos portal site.

Cognos Web products may use a Cognos portal or may be integrated with other portals.

**prompt**

A report element that asks for parameter values before the report is run.

**quantitative data**

Numeric data that can be calculated, such as a measure (also known as a fact).

**qualitative data**

Non-measure data, such as products or names. Numbers can also be qualitative, such as order numbers and serial numbers.

**query**

A description of the data to be retrieved from a database. Queries identify what columns or query items to include or show in the result set, and what operations should be performed as the data is retrieved.

Queries are expressed in a formal language, such as SQL, or by using ReportNet XML specifications. In ReportNet, you use tools such as Query Studio and Report Studio to create and execute queries.

**query item**

A representation of a column of data in a data source. It contains a reference to a database column, a reference to another query item, or a calculation. Query items may appear in a model or in a report.

**query subject**

In a model, the equivalent of a table of columns in a database. Query items within the query subject represent the columns that make up the table.

**report item**

A query item that is added to a report is known as a report item.

Report items appear as columns in list reports, and as rows and columns in crosstab reports. In charts, report items appear as data markers and axis labels.

**summary**

In reporting, summaries are aggregate values that are calculated for all the values of a particular level or dimension. Examples of summaries include total, minimum, maximum, average, and count.

**tables**

Structures in a database that contain data organized into rows and columns. In a model, query subjects represent tables.

**URL**

The global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located. A sample URL is <http://www.mysite.com/Welcome.html>, where http is the protocol, www.mysite.com is the domain name, and Welcome.html is the document.

**XML**

A language that uses markup symbols or tags to create descriptions of the structure of data. The XML standard is defined by the World Wide Web Consortium (W3C), and is related to HTML and SGML. Unlike HTML, XML is extensible because the tags aren't predefined or limited.



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# Index

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## Numerics

- 100% stacked charts, 24
- 3D charts, 25

## A

- absolute value, 41
- adding
  - calculations, 39
  - data, 11
  - descriptions, 12
  - filter text, 27
  - filters, 32
  - groups, 35
  - prompts, 33
  - sections, 36
  - subtitles, 26
  - titles, 26
- addition, *See* sum
- administering reports, 29
- advanced
  - summaries, 40
- appearance, 9
- area charts, 24
- arithmetic operations, *See* calculations
- ascending order, 35
- automatic summarization, 37
- average
  - calculation, 41

## B

- bar charts, 23

## C

- calculations, 39
  - adding, 39, 41
  - creating, 41
  - custom, 39
  - definition, 61
  - editing, 41
  - troubleshooting, 49
- cannot collapse the report, 49
- changing
  - column name, 28
  - column order, 27
  - subtitles, 26
  - the appearance of reports, 26
  - titles, 26

- chart axes, swapping, 28
- chart configurations
  - 100% stacked, 24
  - 3D, 25
  - choosing, 23
  - stacked, 24
  - standard, 24

- chart types
  - area, 24
  - bar, 23
  - choosing, 23
  - column, 23
  - column line, 24
  - line, 24
  - pie, 23
  - radar, 24

- charts
  - creating, 25
  - example, 25
  - removing, 25
  - showing values, 25

- Cognos Connection
  - accessing, 9
  - definition, 61

- column charts, 23

- column line charts, 24

- columns, 12
  - changing the order, 27
  - definition, 61
  - renaming, 28
  - reordering, 27
  - sorting, 35
  - swapping with rows, 28

- combining text, *See* concatenate

- concatenate, 41

- content locales
  - definition, 61

- copyright, 2

- creating
  - charts, 25
  - reports, 9
  - sections, 36

- crosstab reports
  - converting to list reports, 21
  - creating, 21
  - definition, 61
  - example, 22

- CSV
  - definition, 61

## Index

### CSV (*cont'd*)

- format, 15
  - troubleshooting, 49
- CSV file has no commas, 49
- currency
- formatting, 38
- custom groups, 34
- creating, 34
  - example, 34
- cut, 27

## D

- data
- adding, 11
  - deleting, 11
  - filtering, 31
  - grouping, 35
  - incorrect in report, 47
  - missing in report, 47
  - summarizing, 11
- data models
- definition, 61
- data sources
- adding data from, 11
  - definition, 61
- database
- adding data from, 11
- date format, 38
- deleting, *See* removing
- descending order, 35
- descriptions
- adding, 12
- detail values
- sorting, 35
- details, 32
- difference, 39
- distributing reports, 29
- division, 39
- document
- version, 2

## E

- examples
- calculation, 43
  - chart, 25
  - crosstab report, 22
  - custom groups, 34
  - grouped list report, 20
  - list report, 18
- Excel
- format, 15
  - limitations, 51
- exponentiation, *See* power

## F

- fact, *See* measure
- filtering
- data, 31
  - details, 31
  - individual records in the database, 32
  - prompts, 33
  - summaries, 32
- filters
- adding, 32
  - definition, 61
  - model, 33
  - removing, 32
  - removing values as subtitle, 48
  - troubleshooting, 49
  - using values as subtitle, 27
- format
- currency, 38
  - date, 38
  - default, 38
  - number, 38
  - percentage, 38
  - scientific, 38
  - time, 38

## G

- graphs, *See* charts
- grouped list reports
- definition, 61
  - example, 20
- grouping
- removing, 36
- grouping data, 35
- groups
- adding, 35
  - custom, 34
  - definition, 61

## H

- heading
- definition, 61

## I

- icons, 12
- incorrect or unexpected values appear in the report, 47
- inserting, *See* adding

## L

- language
- selecting, 29
- language, troubleshooting, 49
- layouts, 9
- limitations
- Excel, 51
- line charts, 24

list reports  
 converting to crosstab reports, 21  
 example, 18

## M

maximum  
 calculation, 41  
 measure, 61  
 measures, 12, 23  
 definition, 61  
 minimum  
 calculation, 41  
 minus, *See* difference  
 model filters, 33  
 models, 12  
 definition, 61  
 modifying, *See* changing  
 multilingual query items, 49  
 multilingual reports, 17  
 multiplication, *See* product

## N

nested crosstab reports  
 definition, 61  
 no data appears in the report, 47  
 non-measures, 22  
 number of rows  
 reducing, 28  
 specifying, 28  
 numbering rows, 28  
 numbers  
 formatting, 38

## O

opening  
 portals, 9  
 reports, 12  
 order of operations  
 summaries, 40

## P

packages, 9  
 definition, 61  
 versions, 11  
 paste, 27  
 PDF, *See* portable document format files  
 percentage, 39  
 percentage difference, 39  
 percentage of total, 39  
 percentile, 41  
 pie charts, 23  
 portable document format files, 14  
 definition, 61  
 troubleshooting, 48

portals, 9  
 definition, 62  
 power, 41  
 predefined summaries, 39  
 printed report is unsatisfactory, 48  
 printing  
 reports, 16  
 troubleshooting, 48  
 problem when printing PDF, 48  
 product, 39  
 version, 2  
 prompts  
 adding, 33  
 definition, 62  
 filtering, 33

## Q

qualitative data  
 definition, 62  
 quantile, 41  
 quantitative data  
 definition, 62  
 quartile, 41  
 queries  
 definition, 62  
 query items  
 definition, 62  
 Query Studio  
 description, 9  
 exiting, 10  
 query subject  
 definition, 62

## R

radar charts, 24  
 rank, 39  
 remove filtervalue subtitles, 48  
 removing  
 charts, 25  
 filter values as subtitle, 48  
 filters, 32  
 grouping, 36  
 summaries, 41  
 tables, 25  
 titles, 26  
 renaming  
 columns, 28  
 report items, 28  
 reordering  
 columns, 27  
 report details, 32  
 report does not appear in XML format, 49  
 report filter does not work, 49  
 report items, 11  
 definition, 62  
 renaming, 28

## Index

- report items (*cont'd*)
  - sorting, 35
- report types
  - charts, 22
  - crosstab, 21
  - list, 18
- report viewer
  - running reports, 11
- reports
  - administration, 29
  - creating, 14
  - distributing, 29
  - multilingual, 17
  - opening, 12
  - printing, 16
  - running, 13
  - samples, 45
  - saving, 12
  - scheduling, 29
  - troubleshooting, 47
  - updating, 11
- round, 41
- round down, 41
- rows
  - headings, 19
  - numbering, 28
  - specifying the number, 28
  - swapping with columns, 28
- running reports, 13
  - using all data, 13
- running total, 49
- running total in grouped reports gives unexpected results, 49

## S

- sample reports, 45
- SAP BW, 13, 23, 33, 34, 38, 42
- saving reports, 12
- scheduling reports, 29
- scientific notation, 38
- section headings, 36
- sections
  - adding, 36
- showing
  - chart only, 25
  - values on charts, 25
- size of pages, 28
- sorting
  - ascending order, 35
  - columns, 35
  - descending order, 35
  - detail values, 35
  - report items, 35
  - summary values, 35
- square root, 41
- stacked charts, 24

- standard charts, 24
- subtitles
  - adding, 26
  - changing, 26
- subtraction, *See* difference
- sum, 39
- summaries
  - advanced, 40
  - applying to footers, 40
  - definition, 62
  - filtering, 32
  - order of operations, 40
  - predefined, 39
  - removing, 41
- summarization
  - turning off, 37
- summary values
  - sorting, 35
- swapping
  - chart axes, 28
  - rows and columns, 28

## T

- tables, 11
  - definition, 62
  - removing, 25
  - removing from charts, 25
  - showing with charts, 25
- time format, 38
- titles
  - adding, 26
  - changing, 26
  - removing, 26
- troubleshooting, 47, 51
  - calculations, 49
  - collapse group, 49
  - CSV, 49
  - filters, 49
  - language, 49
  - printing, 48
  - reports, 47
  - XML, 49

## U

- updating reports, 11
- URLs
  - definition, 62

## V

- values
  - detail, 31
  - incorrect, 47
  - showing on charts, 25
  - summary, 32

- version
  - product, [2](#)
- versions, packages, [11](#)
- viewing reports
  - CSV format, [15](#)
  - Excel 2002 format, [16](#)
  - Excel format, [15](#)
  - PDF format, [14](#)
  - XML format, [15](#)

## **X**

- XML
  - definition, [63](#)
  - troubleshooting, [49](#)
  - viewing reports, [15](#)

